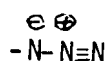


**CLASS 552, ORGANIC COMPOUNDS -- PART  
OF THE CLASS 532-570 SERIES**

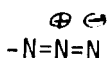
**SUBCLASSES**

- 1** This subclass is indented under subclass 1. Compounds under Class 532, ... , which contain the azide group.

- (1) Note. The azide group has no single definite structure; it can be represented by different resonance forms, such as:



and



- (2) Note. For simplicity, the azide group shall be structurally depicted in the following definitions as:



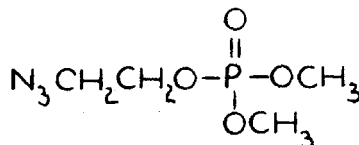
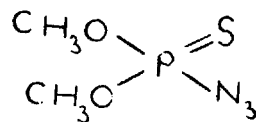
**SEE OR SEARCH CLASS:**

588, Hazardous or Toxic Waste Destruction or Containment, subclass 408 for the chemical destruction of organic hazardous or toxic waste containing nitrogen.

- 2** This subclass is indented under subclass 1. Products wherein the azide is mixed with a stabilizing or preserving agent, whose sole function is to prevent physical or chemical change.

- 3** This subclass is indented under subclass 1. Compounds wherein the azide group is attached directly or indirectly to phosphorus by nonionic bonding.

- (1) Note. Examples of compounds provided for herein are:



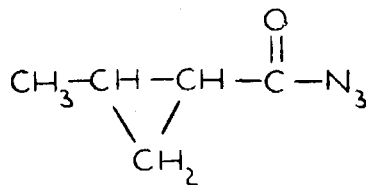
- 4** This subclass is indented under subclass 1. Compounds which contain silicon, boron, aluminum or heavy metal.

- (1) Note. Heavy metals are those whose specific gravity is greater than 4.00.

- (2) Note. Arsenic is considered as a metal.

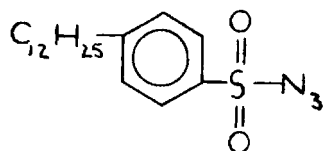
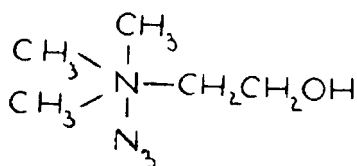
- 5** This subclass is indented under subclass 1. Compounds wherein the azide group is bonded directly to nitrogen or to chalcogen (i.e., oxygen, sulfur, selenium or tellurium).

- (1) Note. Examples of compounds provided for herein are:



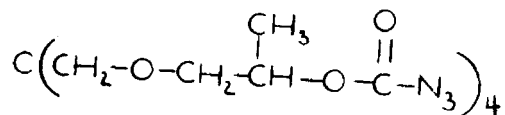
- 6** This subclass is indented under subclass 1. Compounds wherein the azide group is bonded directly to  $-\text{C}(=\text{X})-$ , in which X is chalcogen (i.e., oxygen, sulfur, selenium or tellurium).

- (1) Note. An example of a compound provided for herein is:



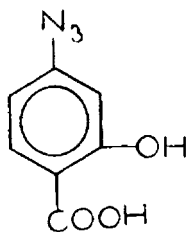
- 7 This subclass is indented under subclass 6. Compounds wherein the  $-C(=X)-$  group is also bonded directly to chalcogen.

(1) Note. An example of a compound provided for herein is:



- 8 This subclass is indented under subclass 1. Compounds wherein the azide group is bonded directly to a benzene ring.

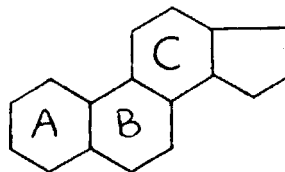
(1) Note. An example of a compound provided for herein is:



- 9 This subclass is indented under subclass 1. Compounds which contain the cyclopentano-hydrophenanthrene ring system.

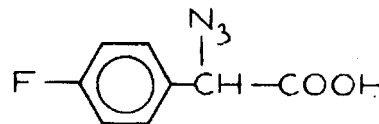
(1) Note. The cyclopentano-hydrophenanthrene ring system is depicted by the following structure, in which at least one of

the rings A, B and C is not a benzene ring:



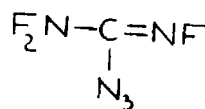
- 10 This subclass is indented under subclass 1. Compounds wherein the azide group is bonded directly to acyclic carbon.

(1) Note. An example of a compound provided for herein is:



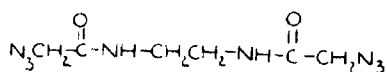
- 11 This subclass is indented under subclass 10. Compounds wherein the azide group is attached indirectly to nitrogen by acyclic non-ionic bonding.

(1) Note. An example of a compound provided for herein is:



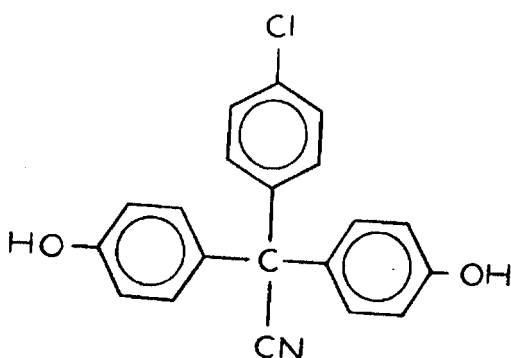
- 12 This subclass is indented under subclass 11. Compounds in which the azide group is attached indirectly to  $-C(=X)-$ , wherein X is chalcogen (i.e., oxygen, sulfur, selenium or tellurium), by acyclic nonionic bonding.

(1) Note. An example of a compound provided for herein is:



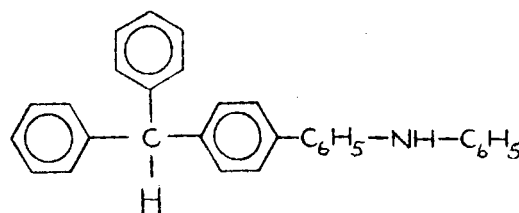
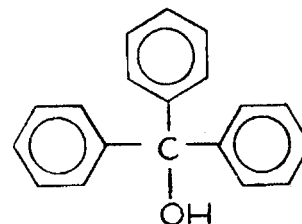
- 100** This subclass is indented under subclass 1. Compounds under Class 532, ... wherein three benzene rings and a cyano group are bonded to the same acyclic carbon.

(1) Note. An example of a compound provided for herein is:



- 101** This subclass is indented under subclass 1. Compounds under Class 532, ... , wherein either (a) three benzene rings or (b) two benzene rings and a cyclohexadienyl ring are bonded directly to the same acyclic carbon, which acyclic carbon may not be bonded to a fourth carbon.

- (1) Note. The triarylmethane dyestuffs are included within this subclass and its indents.
- (2) Note. To be classified in this subclass, a compound must contain carbon, hydrogen, and at least one additional element; hydrocarbon triarylmethanes are classified in Class 585.
- (3) Note. Examples of compounds provided for herein are:



- 102** This subclass is indented under subclass 101. Products , wherein the compound is mixed with a stabilizing or preserving agent, whose sole function is to prevent physical or chemical change.

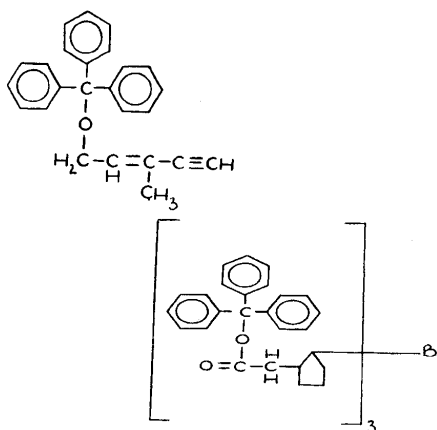
- 103** This subclass is indented under subclass 101. Compounds which contain aluminum or heavy metal.

- (1) Note. Heavy metals are those whose specific gravity is greater than 4.00.
- (2) Note. Arsenic is considered as a metal.

- 104** This subclass is indented under subclass 101. Compounds wherein the acyclic carbon is attached directly to nitrogen, sulfur, phosphorus or peroxy by nonionic bonding.

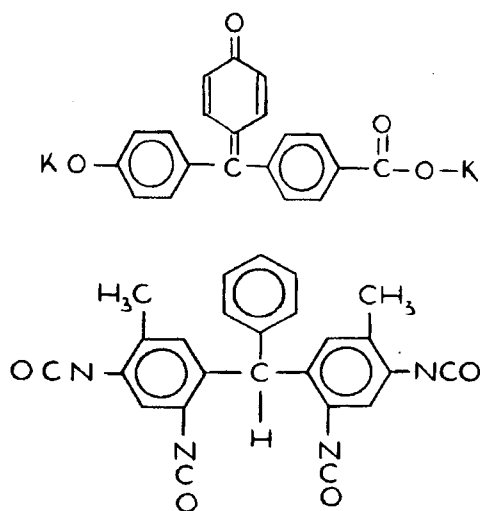
- 105** This subclass is indented under subclass 101. Compounds wherein the same oxygen is bonded both to the acyclic carbon and to an additional carbon.

- (1) Note. Examples of compounds provided for herein are:



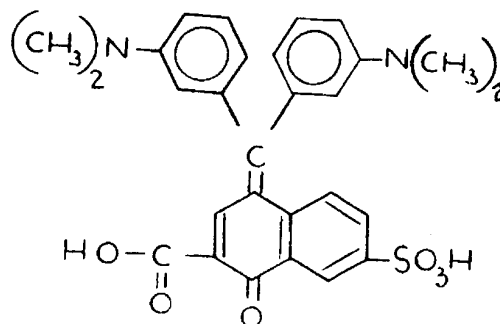
- 106** This subclass is indented under subclass 101. Compounds wherein  $\text{N}=\text{C}=\text{O}$  or  $\text{-C(=O)OH}$ , in which H may be replaced by Group IA or IIA light metal or by substituted or unsubstituted ammonium, is bonded directly to one of the rings or to a polycyclo ring system containing one of the rings.

(1) Note. Examples of compounds provided for herein are:



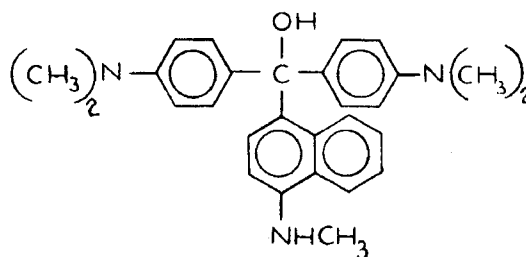
- 107** This subclass is indented under subclass 106. Compounds in which the ring, or the polycyclo ring system containing the ring, is further bonded directly to chalcogen (i.e., oxygen, sulfur, selenium or tellurium).

(1) Note. An example of a compound provided for herein is:



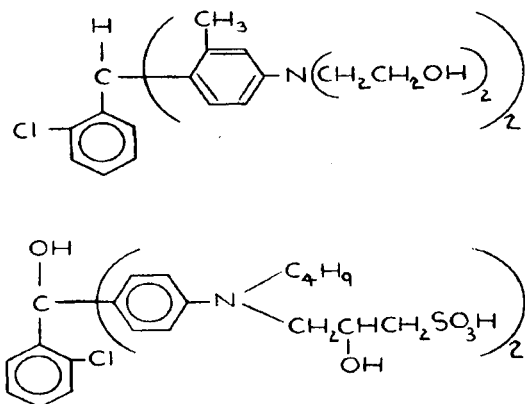
- 108** This subclass is indented under subclass 101. Compounds wherein a polycyclo ring system is bonded directly to the acyclic carbon.

(1) Note. An example of a compound provided for herein is:



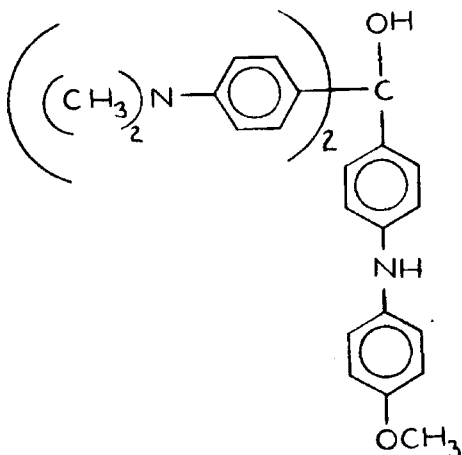
- 109** This subclass is indented under subclass 101. Compounds wherein (a) nitrogen and (b) cyano, carbonyl, additional nitrogen, or chalcogen (i.e., oxygen, sulfur, selenium or tellurium) are bonded to the same acyclic alkylene group.

(1) Note. Examples of compounds provided for herein are:



- 110** This subclass is indented under subclass 101. Compounds, wherein the same nitrogen is bonded to one of the rings and to a benzene ring.

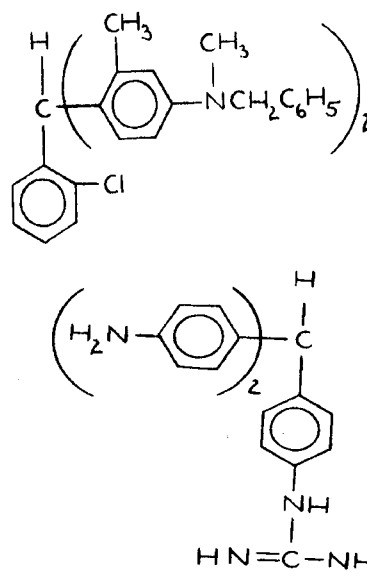
(1) Note. An example of a compound provided for herein is:



- 111** This subclass is indented under subclass 101. Compounds wherein a ring is attached to nitrogen, except as cyano, by acyclic nonionic bonding.

(1) Note. The compound may contain a cyano group, provided that an additional nitrogen is present which will satisfy the requirement of this subclass.

(2) Note. Examples of compounds provided for herein are:



- 112** This subclass is indented under subclass 101. Compounds wherein-S(=O)(=O)OH, in which H may be replaced by a Group IA or IIA light metal or by substituted or unsubstituted ammonium, is bonded directly to carbon.

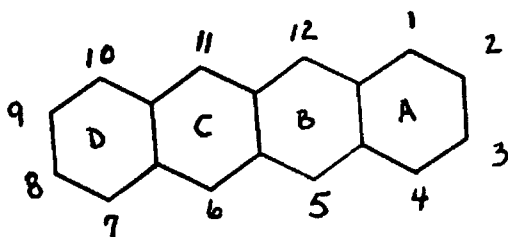
- 113** This subclass is indented under subclass 101. Compounds wherein one of the rings is bonded directly to nitrogen.

- 114** This subclass is indented under subclass 113. Compounds wherein each of the rings is bonded directly to nitrogen.

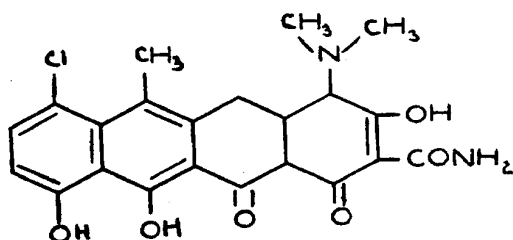
- 115** This subclass is indented under subclass 101. Compounds wherein one of the rings is bonded directly to chalcogen (i.e., oxygen, sulfur, selenium or tellurium).

- 200** This subclass is indented under subclass 1. Compounds under Class 532, ... having the tetracyclo naphthacene ring configuration with at least one double bond between ring members and having oxygen bonded directly to a carbon of an interior ring, of the ring system, which carbon is a member of one ring only.

- (1) Note. The tetracyclo naphthacene configured ring is numbered as follows, for this subclass and its indents:

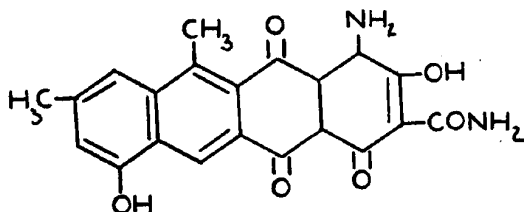


- (2) Note. This subclass contains, for example:



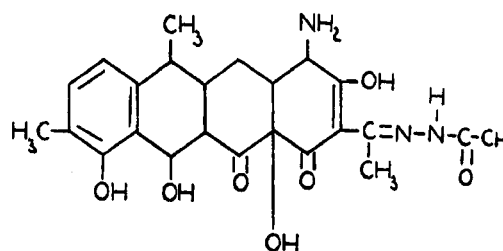
- 201** This subclass is indented under subclass 200. Compounds wherein the interior ring, of the tetracyclo naphthacene configured ring system, has two oxygens double bonded directly thereto in para positions.

- (1) Note. This subclass contains, for example:



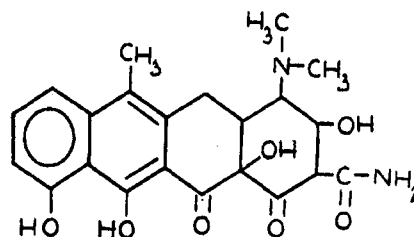
- 202** This subclass is indented under subclass 200. Compounds wherein the tetracyclo naphthacene configured ring system has at least six oxygens bonded directly thereto.

- (1) Note. This subclass contains, for example:



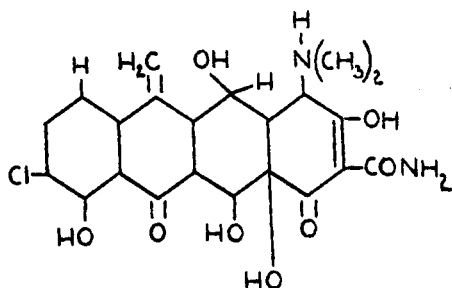
- 203** This subclass is indented under subclass 202. Compounds wherein the tetracyclo ring system has nitrogen and either the cyano or carboxyl group bonded directly to the same ring, e.g., tetracycline, etc.

- (1) Note. This subclass contains, for example:



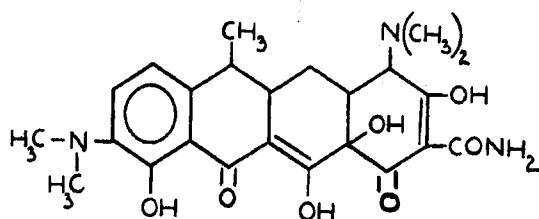
- 204** This subclass is indented under subclass 203. Compounds which additionally have carbon double bonded directly to the tetracyclo ring system, e.g., 6-methylene tetracycline, etc.

- (1) Note. This subclass contains, for example:



**205** This subclass is indented under subclass 203. Compounds wherein the tetracyclo ring system has plural nitrogens bonded directly thereto.

- (1) Note. This subclass contains, for example:

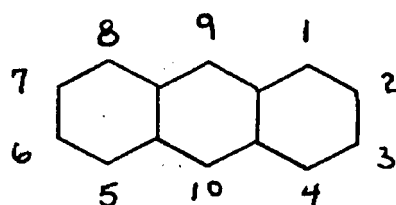


**206** This subclass is indented under subclass 203. Processes of preparing, purifying or recovering the tetracyclo ring system compounds which have nitrogen and cyano or carbonyl bonded directly to them.

**207** This subclass is indented under subclass 206. Processes in which an aluminum or heavy metal containing material is utilized.

**208** This subclass is indented under subclass 1. Compounds under Class 532, ... , having a polycyclo ring system which is or contains the anthracene ring configuration with at least one double bond between ring members and having oxygen single bonded or any atom double bonded directly to the ring system at the 9- and 10- positions.

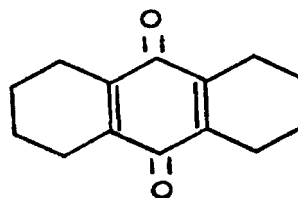
- (1) Note. For this and indented subclasses, the anthracene-configured ring is numbered as follows:



- (2) Note. For this and indented subclasses, the anthraquinone, other than those provided for in this class (552), subclasses 268 through 270.

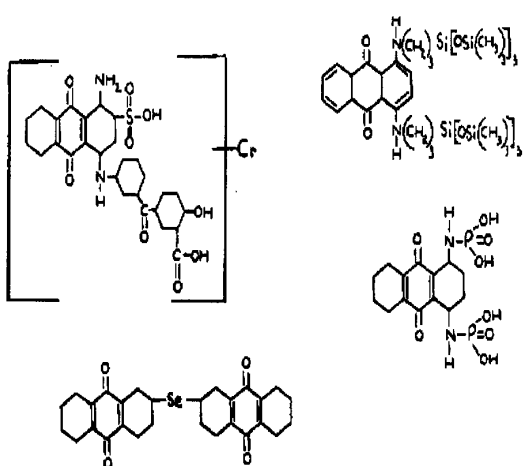
- (3) Note. This subclass contains processes of purification and separation of anthraquinone, per se.

- (4) Note. This subclass contains, for example:



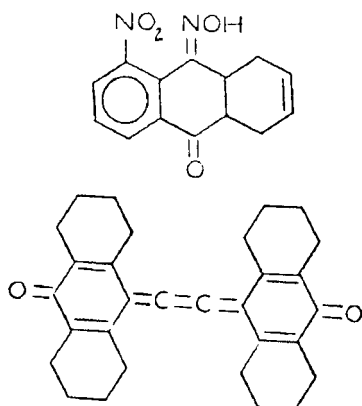
**209** This subclass is indented under subclass 208. Compounds which contain phosphorus, selenium, silicon, heavy metal or aluminum.

- (1) Note. This subclass contains, for example:



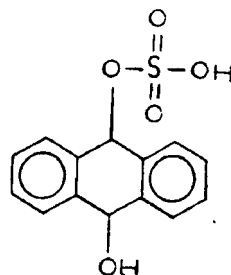
- 210** This subclass is indented under subclass 208. Compounds wherein nitrogen or carbon is double bonded directly at the 9- or 10- position of the ring system.

(1) Note. This subclass contains, for example:



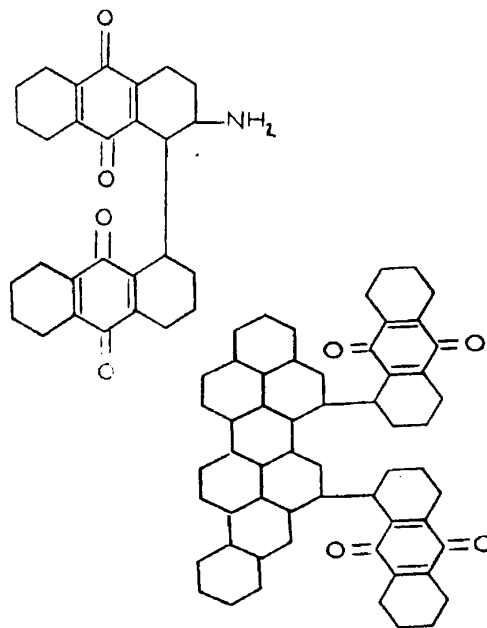
- 211** This subclass is indented under subclass 208. Compounds wherein sulfur is bonded directly to the oxygen which is single bonded directly to the 9- or 10- position of the ring system.

(1) Note. This subclass contains, for example:



- 212** This subclass is indented under subclass 208. Compounds wherein the polycyclo ring system is bonded directly to an additional polycyclo ring system which has at least three cyclos.

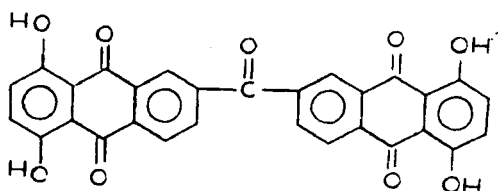
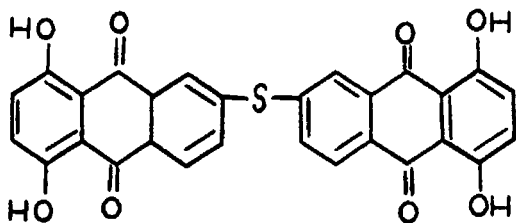
(1) Note. This subclass contains, for example:



- 213** This subclass is indented under subclass 208. Compounds wherein the polycyclo ring system and an additional polycyclo ring system which has at least three cyclos are bonded directly to the same atom.

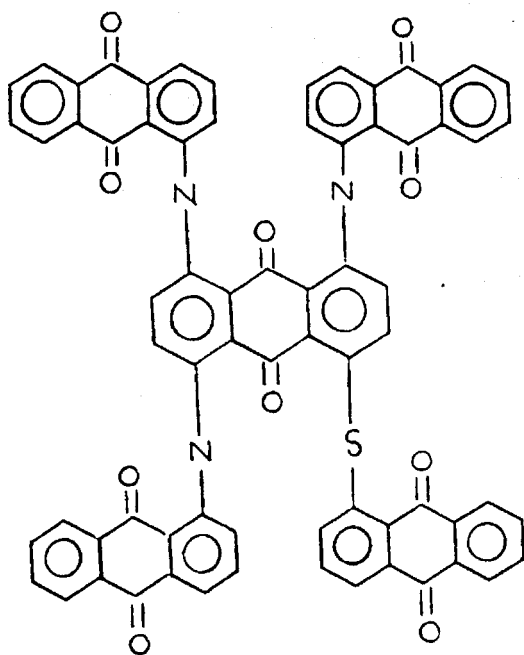
(1) Note. This subclass contains, for example:





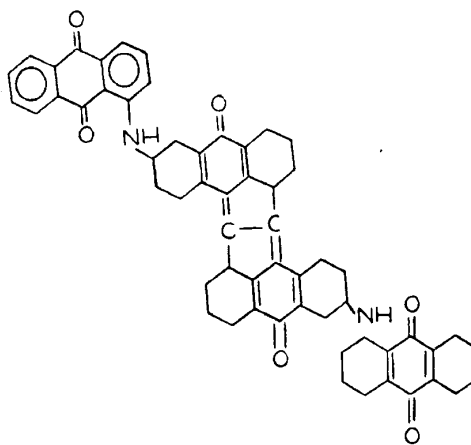
- 214** This subclass is indented under subclass 213. Compounds wherein nitrogen is the atom.

(1) Note. This subclass contains, for example:



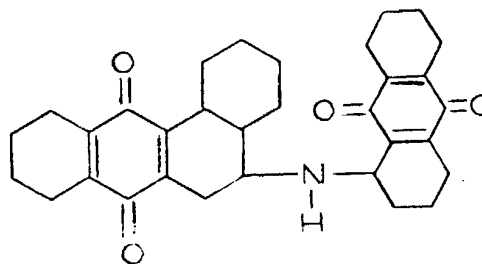
- 215** This subclass is indented under subclass 214. Compounds wherein the polycyclo ring system has at least five cycles.

(1) Note. This subclass contains, for example:



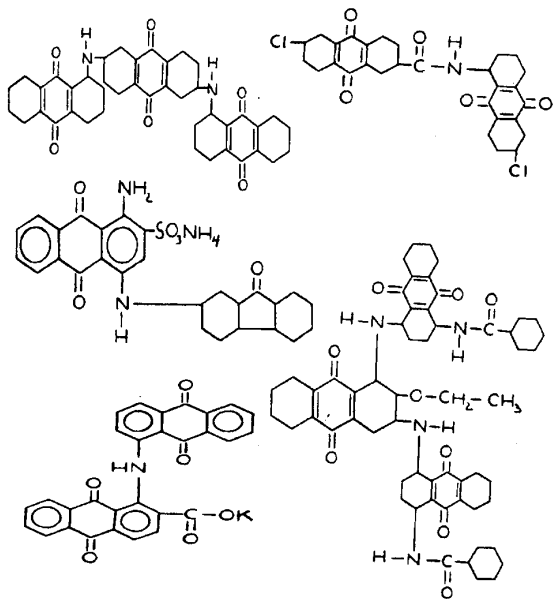
- 216** This subclass is indented under subclass 214. Compounds wherein the polycyclo ring system is tetracyclic, i.e., is composed of four rings.

(1) Note. This subclass contains, for example:



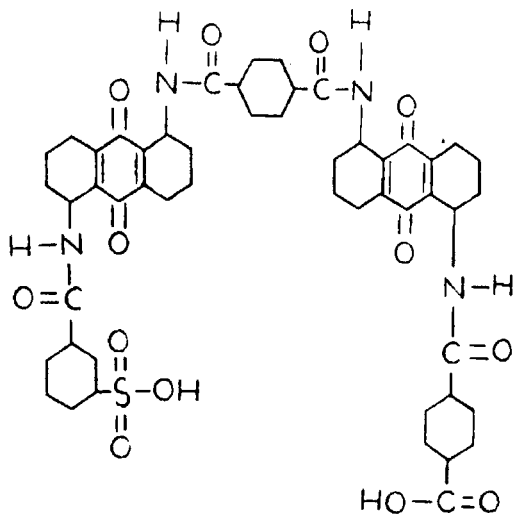
- 217** This subclass is indented under subclass 214. Compounds wherein the anthracene configured ring system has halogen, sulfur, oxygen, nitrogen or additional carbon bonded directly to a beta position.

(1) Note. This subclass contains, for example:



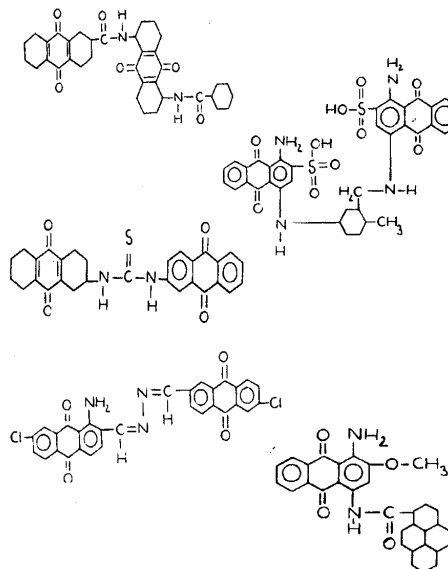
- 218** This subclass is indented under subclass 208. Compounds wherein a polycyclo ring system having at least three cycles is attached indirectly to the anthracene configured ring system by nonionic bonding.

(1) Note. This subclass contains, for example:



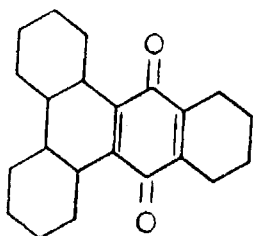
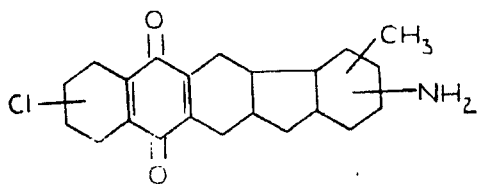
- 219** This subclass is indented under subclass 218. Compounds wherein the anthracene configured ring system has halogen, sulfur, oxygen, nitrogen or additional carbon bonded directly at the beta position (i.e., 2-, 3-, 6- or 7- position).

(1) Note. This subclass contains, for example:



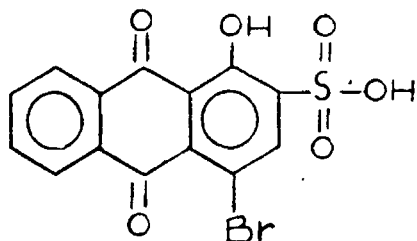
- 220** This subclass is indented under subclass 208. Compounds wherein the anthracene configured ring system is a part of a polycyclo ring system which has at least four cycles.

(1) Note. This subclass contains, for example:



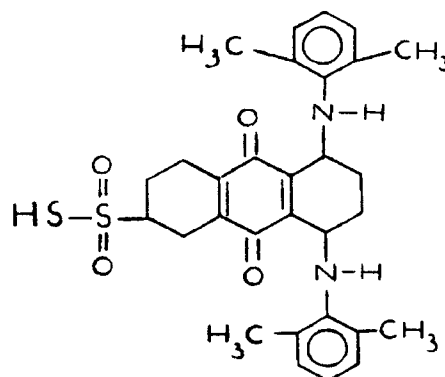
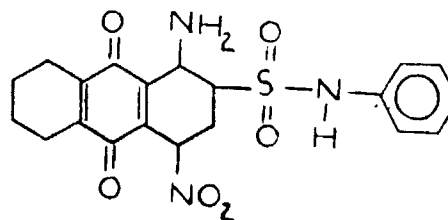
- 221** This subclass is indented under subclass 208. Compounds wherein a beta position (i.e., 2-, 3-, 6-, or 7- position) of the anthracene ring system has at least one sulfur bonded directly thereto.

(1) Note. This subclass contains, for example:



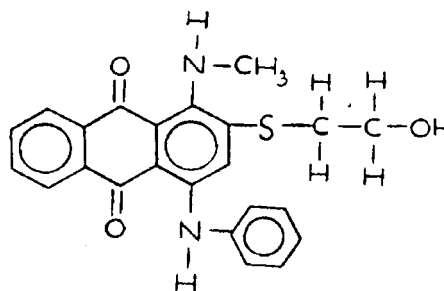
- 222** This subclass is indented under subclass 221. Compounds wherein the sulfur has nitrogen or additional sulfur bonded directly thereto.

(1) Note. This subclass contains, for example:



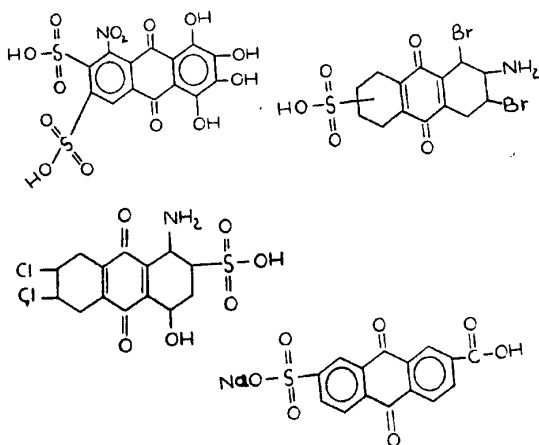
- 223** This subclass is indented under subclass 221. Compounds wherein the sulfur has additional carbon bonded directly thereto.

(1) Note. This subclass contains, for example:



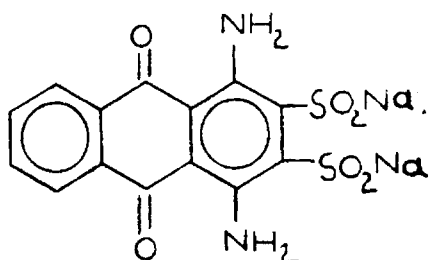
- 224** This subclass is indented under subclass 221. Compounds wherein a beta position (i.e., 2-, 3-, 6- or 7- position) of the anthracene configured ring system has halogen, oxygen, nitrogen or carbonyl bonded directly thereto.

(1) Note. This subclass contains, for example:



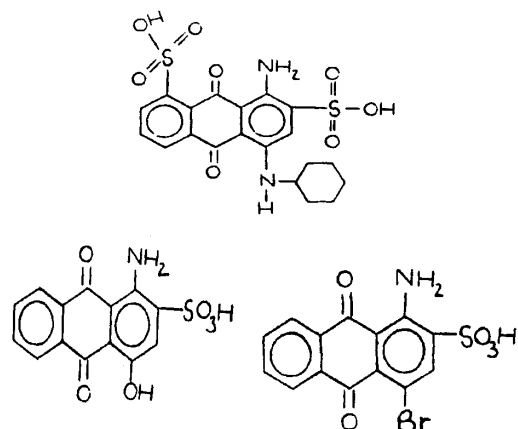
- 225** This subclass is indented under subclass 221. Compounds wherein an alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system has nitrogen bonded thereto.

(1) Note. This subclass contains, for example:



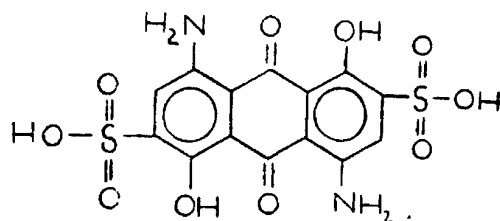
- 226** This subclass is indented under subclass 225. Compounds wherein an alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system has halogen, sulfur or oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



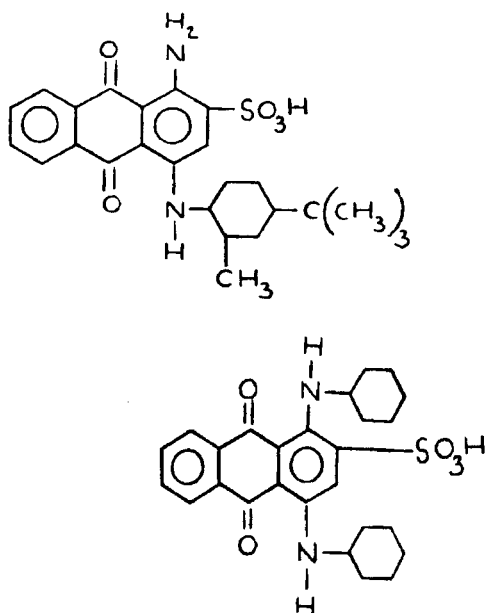
- 227** This subclass is indented under subclass 226. Compounds wherein at least two alpha positions (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system have the same atom bonded directly thereto.

(1) Note. This subclass contains, for example:



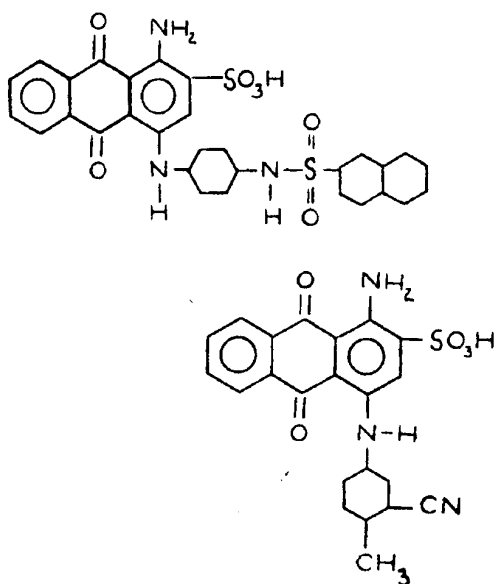
- 228** This subclass is indented under subclass 225. Compounds which contain at least one additional ring.

(1) Note. This subclass contains, for example:



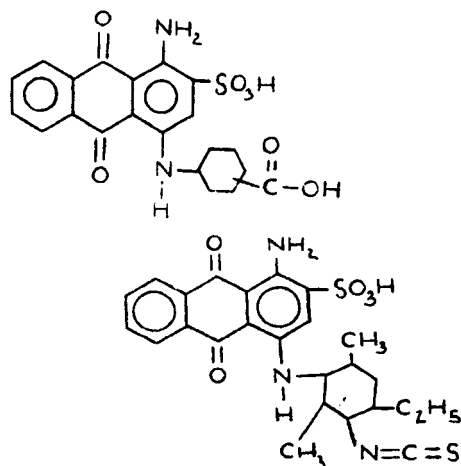
- 229** This subclass is indented under subclass 228. Compounds which contain cyano or contain nitrogen bonded directly to sulfur.

(1) Note. This subclass contains, for example:



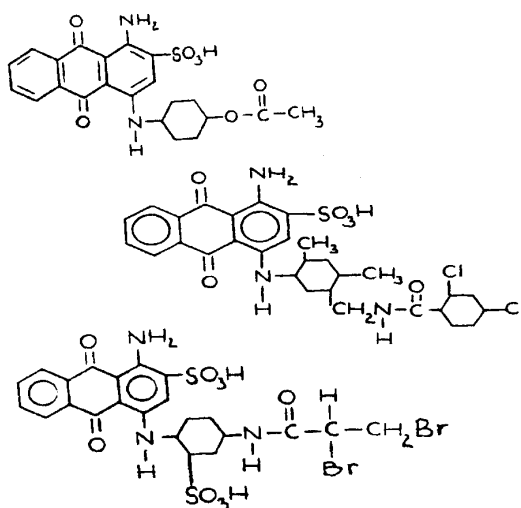
- 230** This subclass is indented under subclass 228. Compounds which contain acyclic carbonyl or thiocarbonyl.

(1) Note. This subclass contains, for example:



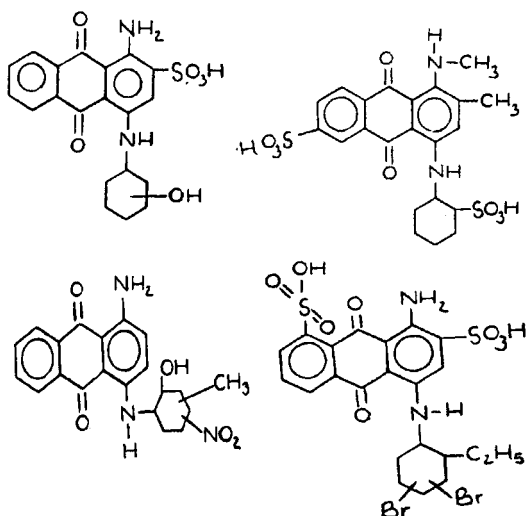
- 231** This subclass is indented under subclass 230. Compounds wherein the additional ring has halogen, sulfur or oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



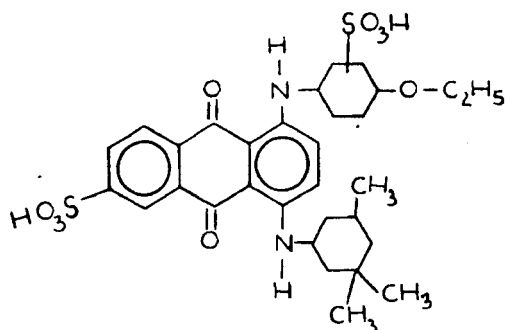
- 232** This subclass is indented under subclass 228. Compounds wherein the additional ring has halogen, nitro, sulfur or oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



- 233** This subclass is indented under subclass 232. Compounds which contain plural additional rings.

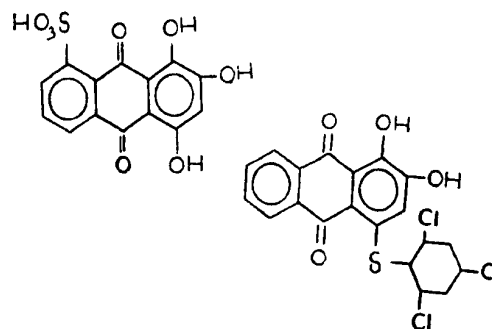
(1) Note. This subclass contains, for example:



- 234** This subclass is indented under subclass 208. Compounds wherein an alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system has nitrogen bonded directly thereto.

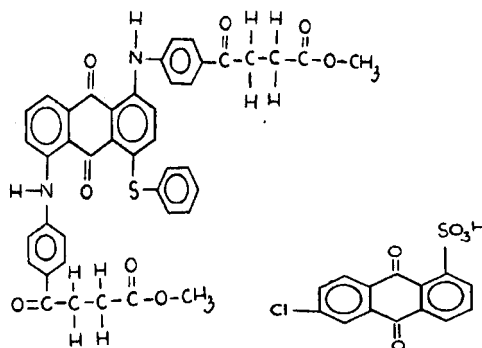
ured ring system has sulfur bonded directly thereto.

(1) Note. This subclass contains, for example:



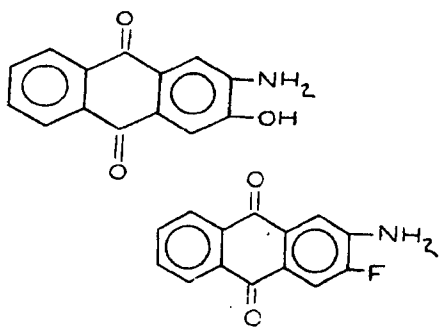
- 235** This subclass is indented under subclass 234. Compounds wherein the anthracene configured ring system has halogen or nitrogen bonded directly thereto.

(1) Note. This subclass contains, for example:



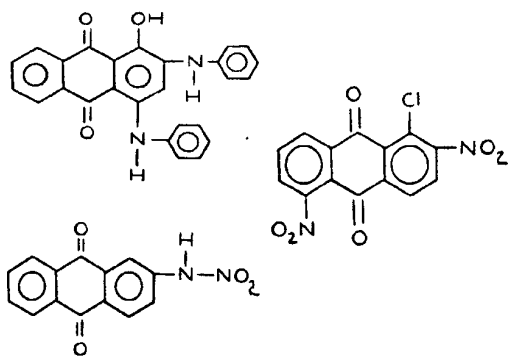
- 236** This subclass is indented under subclass 208. Compounds wherein a beta position (i.e., 2-, 3-, 6-, or 7- position) of the anthracene configured ring system has nitrogen bonded directly thereto.

(1) Note. This subclass contains, for example:



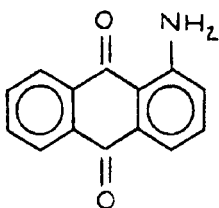
- 237** This subclass is indented under subclass 236. Compounds wherein the nitrogen has an additional carbon, an additional nitrogen or oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



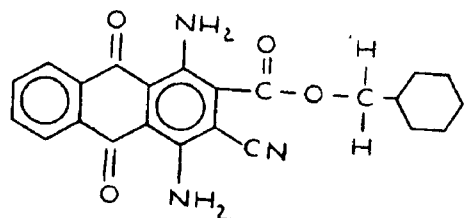
- 238** This subclass is indented under subclass 208. Compounds wherein an alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system has nitrogen bonded directly thereto.

(1) Note. This subclass contains, for example:



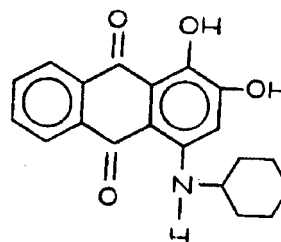
- 239** This subclass is indented under subclass 238. Compounds wherein the anthracene configured ring system has cyano bonded directly thereto.

(1) Note. This subclass contains, for example:



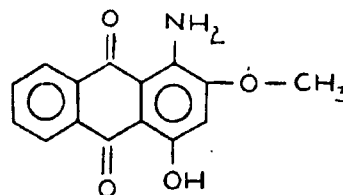
- 240** This subclass is indented under subclass 238. Compounds wherein a beta position (i.e., 2-, 3-, 6-, or 7- position) of the anthracene ring system has oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



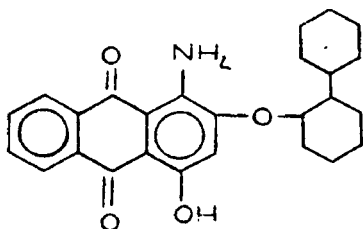
- 241** This subclass is indented under subclass 240. Compounds wherein the oxygen has an additional carbon bonded directly thereto.

(1) Note. This subclass contains, for example:



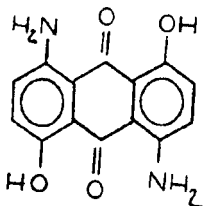
**242** This subclass is indented under subclass 241. Compounds wherein the additional carbon is part of a ring.

- (1) Note. This subclass contains, for example:



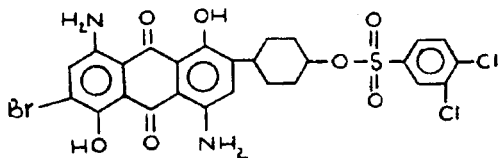
**243** This subclass is indented under subclass 238. Compounds wherein oxygen is bonded directly to a remaining alpha position (i.e., 1-, 4-, 5- or 8- position) of the anthracene configured ring system.

- (1) Note. This subclass contains, for example:



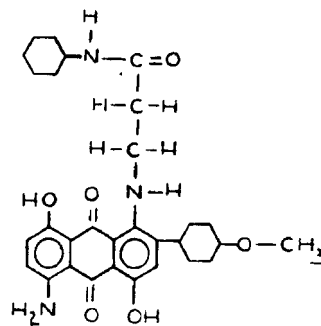
**244** This subclass is indented under subclass 243. Compounds wherein the anthracene configured ring system has halogen bonded directly thereto.

- (1) Note. This subclass contains, for example:



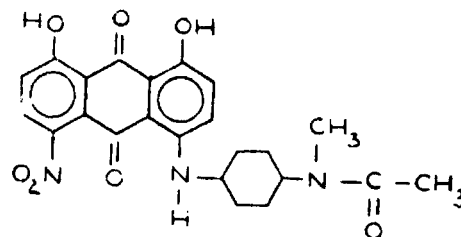
**245** This subclass is indented under subclass 243. Compounds wherein the anthracene configured ring system has carbon bonded directly thereto.

- (1) Note. This subclass contains, for example:



**246** This subclass is indented under subclass 243. Compounds wherein the nitrogen has oxygen bonded directly thereto.

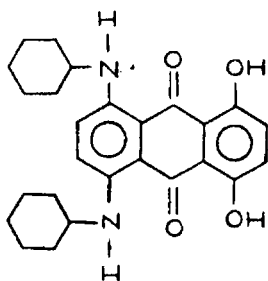
- (1) Note. This subclass contains, for example:



**247** This subclass is indented under subclass 243. Compounds wherein the nitrogen has additional carbon bonded directly thereto.

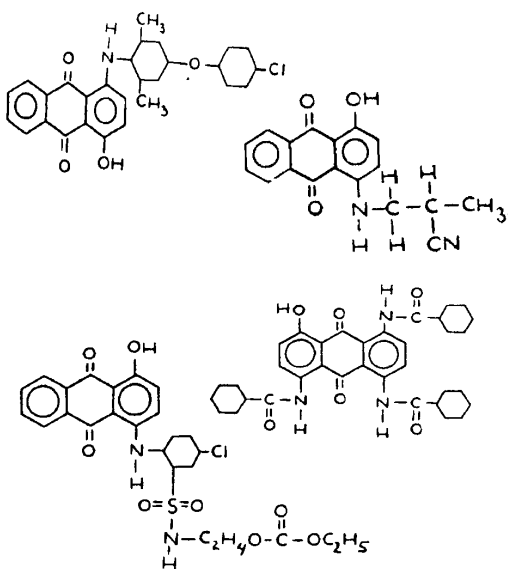
- (1) Note. This subclass contains, for example:





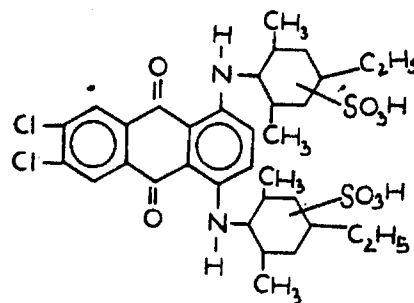
**248** This subclass is indented under subclass 247. Compounds which contain halogen, sulfonamide, carboxamide or cyano.

(1) Note. This subclass contains, for example:



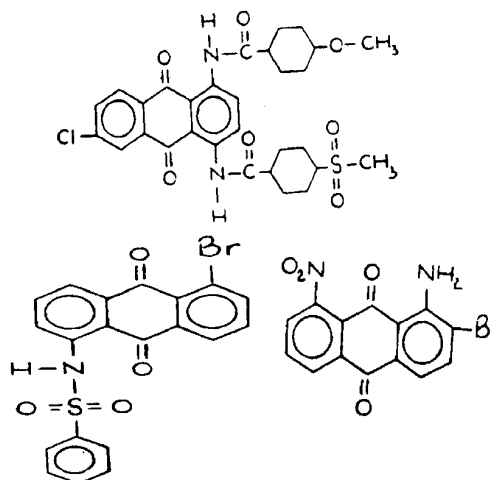
**249** This subclass is indented under subclass 238. Compounds wherein the anthracene configured ring system has halogen bonded directly thereto.

(1) Note. This subclass contains, for example:



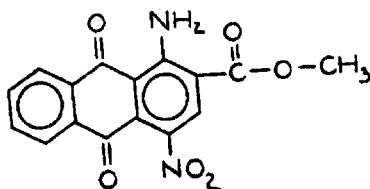
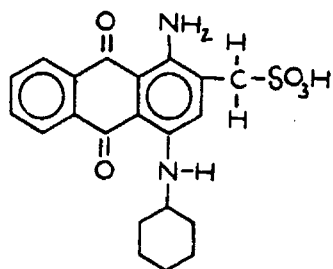
**250** This subclass is indented under subclass 249. Compounds wherein the nitrogen has sulfur, oxygen or carbonyl bonded directly thereto.

(1) Note. This subclass contains, for example:



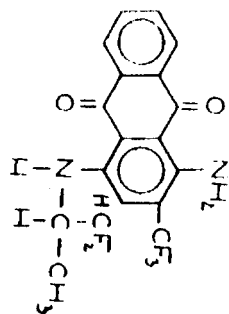
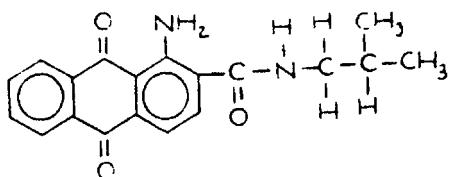
**251** This subclass is indented under subclass 238. Compounds wherein the anthracene configured ring system has carbon bonded directly thereto.

(1) Note. This subclass contains, for example:



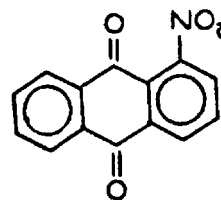
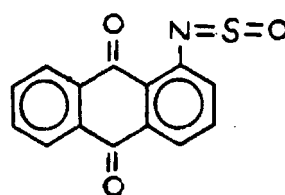
- 252** This subclass is indented under subclass 251. Compounds wherein the carbon has halogen or nitrogen bonded directly thereto.

(1) Note. This subclass contains, for example:



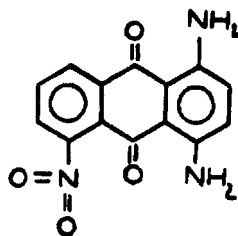
- 253** This subclass is indented under subclass 238. Compounds wherein the nitrogen has sulfur or oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



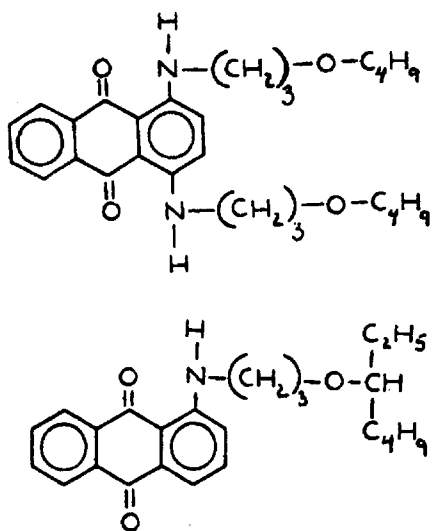
- 254** This subclass is indented under subclass 253. Compounds wherein an additional nitrogen is bonded directly to a remaining alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system.

(1) Note. This subclass contains, for example:



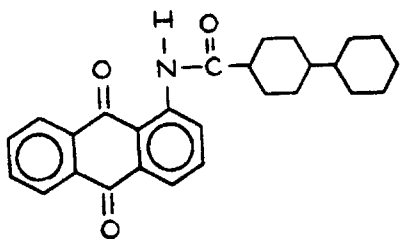
- 255** This subclass is indented under subclass 238. Compounds wherein the nitrogen has an additional carbon bonded directly thereto.

(1) Note. This subclass contains, for example:



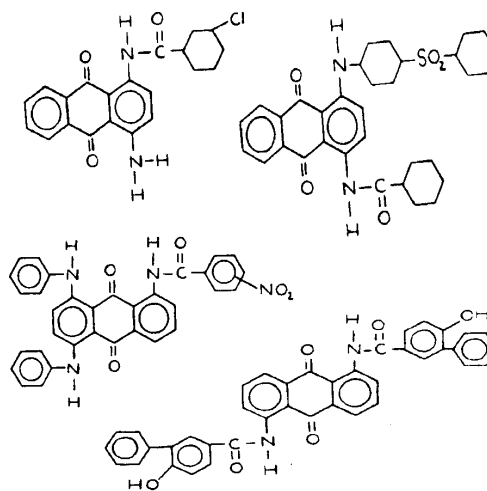
- 256** This subclass is indented under subclass 255. Compounds wherein the additional carbon is part of a carbonyl group (i.e., -N - C-).

(1) Note. This subclass contains, for example:



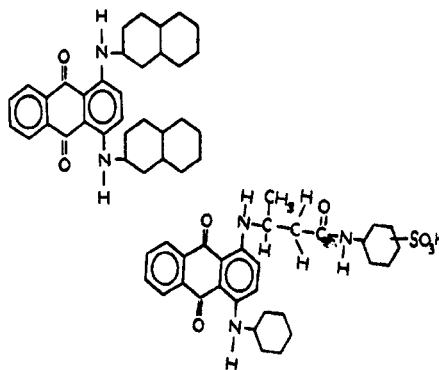
- 257** This subclass is indented under subclass 256. Compounds wherein halogen, sulfur, oxygen or nitrogen is bonded directly to an additional ring.

(1) Note. This subclass contains, for example:



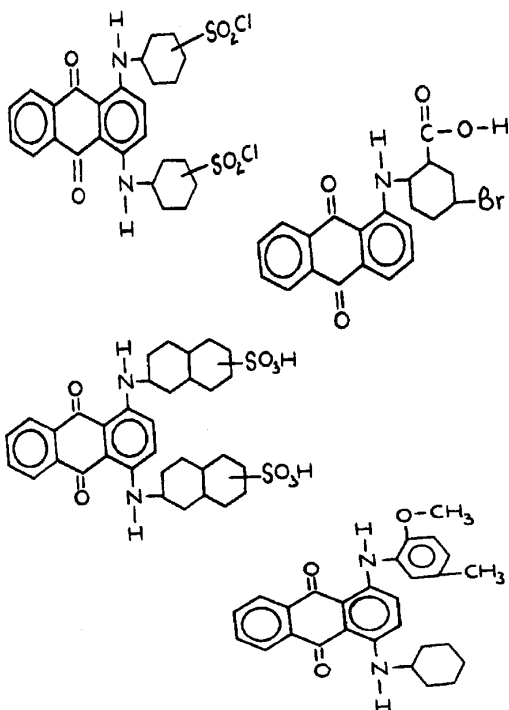
- 258** This subclass is indented under subclass 255. Compounds wherein the additional carbon is part of a ring or a fused ring system.

(1) Note. This subclass contains, for example:



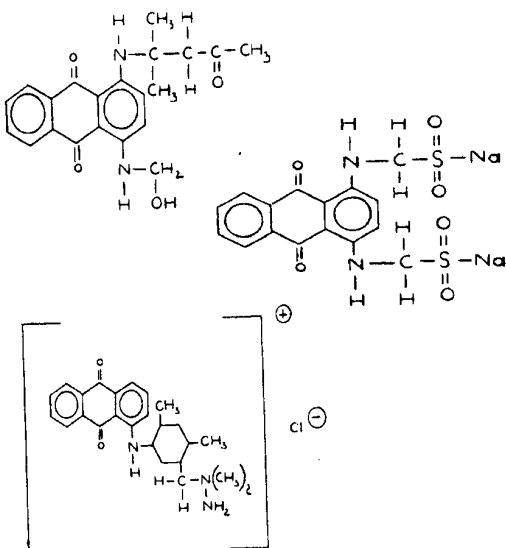
- 259** This subclass is indented under subclass 258. Compounds wherein the ring or fused ring system has halogen, sulfur or oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



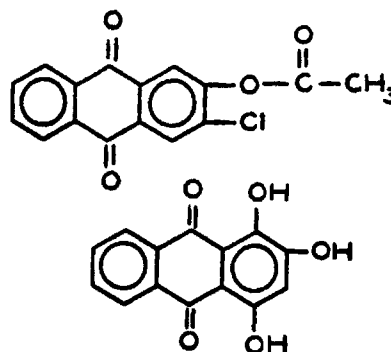
- 260** This subclass is indented under subclass 255. Compounds which contain halogen, sulfur or acyclic carbonyl.

(1) Note. This subclass contains, for example:



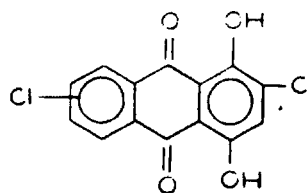
- 261** This subclass is indented under subclass 208. Compounds wherein at least one beta position (i.e., 2-, 3-, 6-, or 7- position) of the anthracene configured ring system has oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



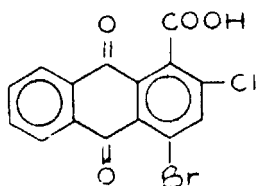
- 262** This subclass is indented under subclass 208. Compounds wherein at least one alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system has oxygen bonded directly thereto.

(1) Note. This subclass contains, for example:



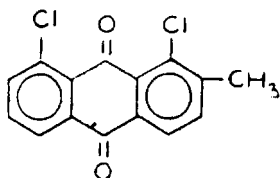
- 263** This subclass is indented under subclass 208. Compounds wherein at least one beta position (i.e., 2-, 3-, 6-, or 7- position) of the anthracene configured ring system has halogen bonded directly thereto.

(1) Note. This subclass contains, for example:



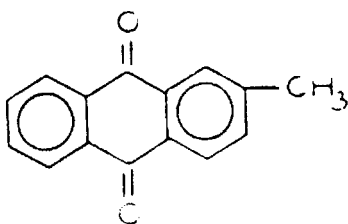
- 264** This subclass is indented under subclass 208. Compounds wherein at least one alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system has halogen bonded directly thereto.

(1) Note. This subclass contains, for example:



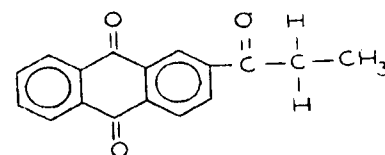
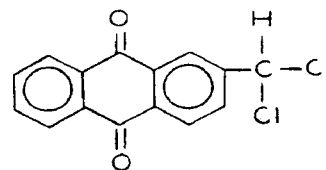
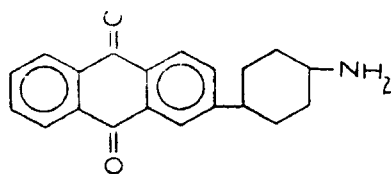
- 265** This subclass is indented under subclass 208. Compounds wherein at least one beta position (i.e., 2-, 3-, 6-, or 7- position) of the anthracene configured ring system has carbon bonded directly thereto.

(1) Note. This subclass contains, for example:



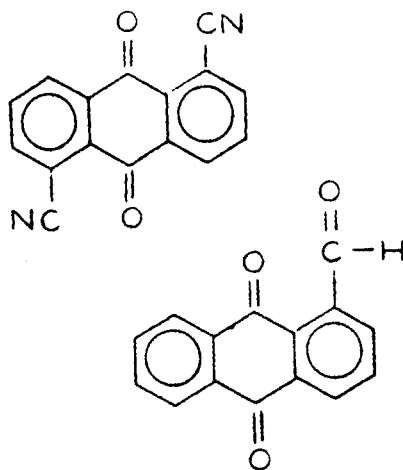
- 266** This subclass is indented under subclass 265. Compounds which contain halogen, nitrogen or additional oxygen.

(1) Note. This subclass contains, for example:



- 267** This subclass is indented under subclass 208. Compounds wherein at least one alpha position (i.e., 1-, 4-, 5-, or 8- position) of the anthracene configured ring system has carbon bonded directly thereto.

(1) Note. This subclass contains, for example:



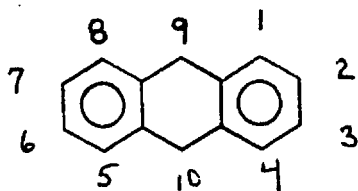
- 268** This subclass is indented under subclass 208. Processes of forming anthraquinone, per se, or an enolic form thereof by utilizing an organic acid, an aldehyde, an anhydride or an indane as one of the reactants.

**269** This subclass is indented under subclass 208. Processes wherein a heavy metal containing material is utilized to form anthraquinone, per se, or an enolic form thereof.

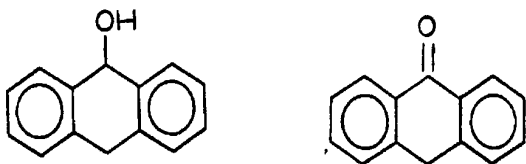
**270** This subclass is indented under subclass 269. Processes wherein either a nitrogen containing material or a light metal containing material is utilized.

**271** This subclass is indented under subclass 1. Compounds under Class 532, ... , having a polycyclo ring system which is or contains the anthracene configured ring system has at least one double bond between ring members and has oxygen single bonded or any atom double bonded directly at the 9- or 10- position of the ring system.

(1) Note. For this and indented subclasses, the anthracene configured ring system is numbered as follows:

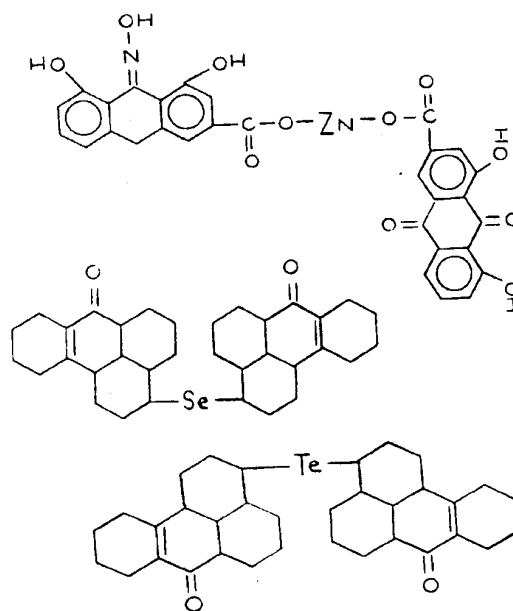


(2) Note. This subclass contains, for example:



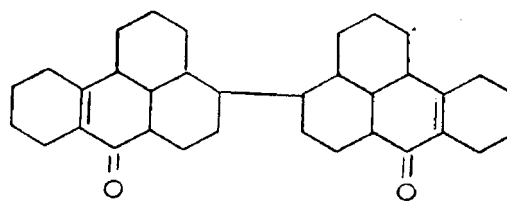
**272** This subclass is indented under subclass 271. Compounds which contain heavy metal, tellurium, selenium, or phosphorus.

(1) Note. This subclass contains, for example:



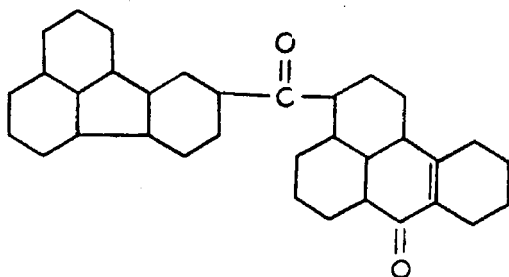
**273** This subclass is indented under subclass 271. Compounds wherein the polycyclo ring system is bonded directly to an additional polycyclo ring system having at least three cycles.

(1) Note. This subclass contains, for example:



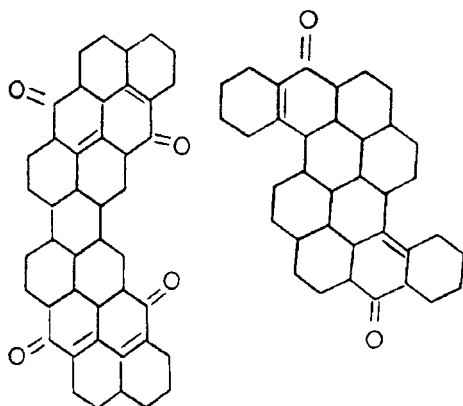
**274** This subclass is indented under subclass 271. Compounds wherein the polycyclo ring system is attached by nonionic bonding indirectly to an additional polycyclo ring system which has at least three cycles.

(1) Note. This subclass contains, for example:



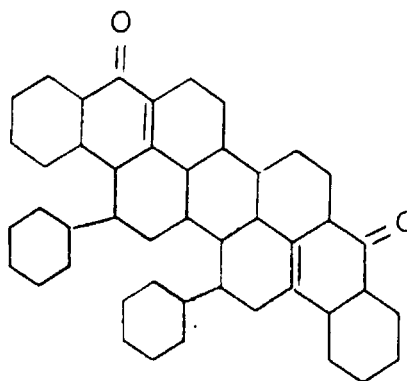
- 275** This subclass is indented under subclass 271. Compounds wherein the anthracene configured ring system is part of a polycyclo ring system which has at least ten cyclos.

(1) Note. This subclass contains, for example:



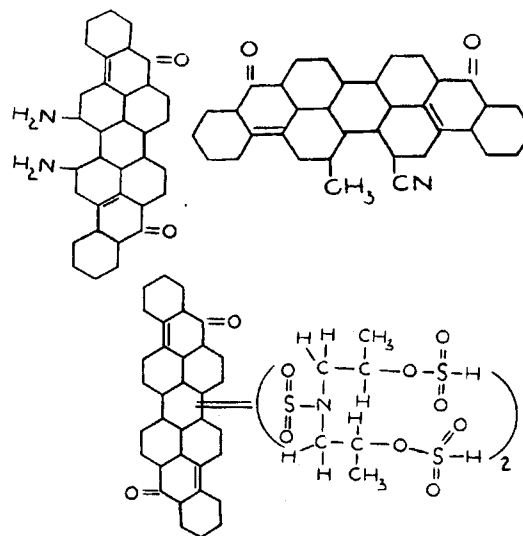
- 276** This subclass is indented under subclass 271. Compounds wherein the anthracene configured ring system is part of a nonacyclo ring system, i.e., a ring system composed of exactly nine cycles.

(1) Note. This subclass contains, for example:



- 277** This subclass is indented under subclass 276. Compounds wherein the nonacyclo ring system has sulfur, nitrogen or cyano bonded directly thereto.

(1) Note. This subclass contains, for example:

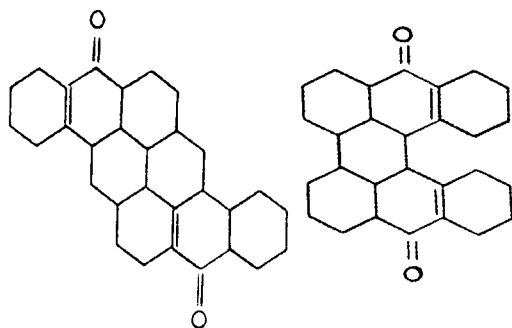


- 278** This subclass is indented under subclass 277. Compounds which contain halogen or processes under subclass 277 wherein a halogen containing material is utilized.

(1) Note. This subclass contains, for example:

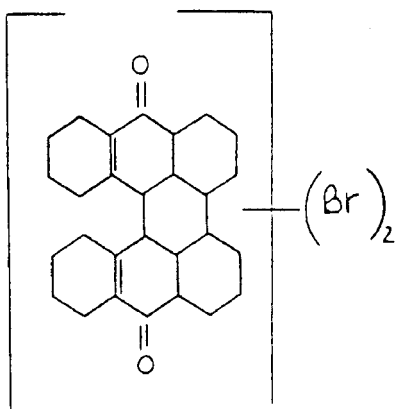






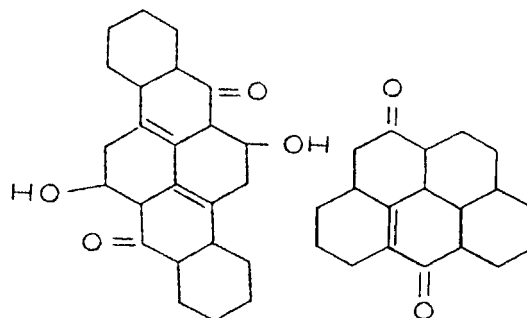
**283** This subclass is indented under subclass 282. Compounds which contain halogen.

- (1) Note. This subclass contains, for example:



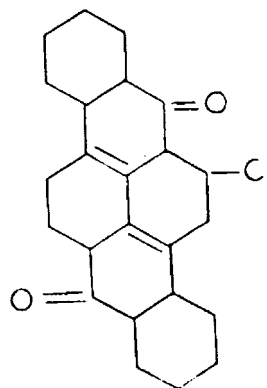
**284** This subclass is indented under subclass 271. Compounds wherein the anthracene configured ring system is part of a ring system composed of five or six cycles.

- (1) Note. This subclass contains, for example:



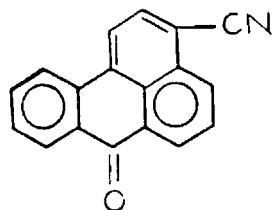
**285** This subclass is indented under subclass 284. Compounds which contain halogen.

- (1) Note. This subclass contains, for example:



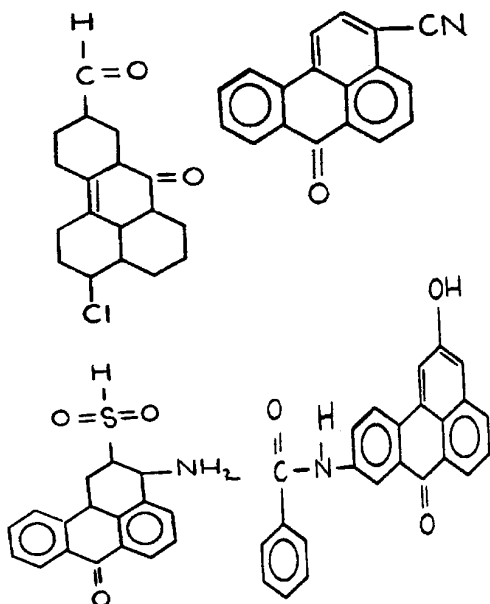
**286** This subclass is indented under subclass 271. Compounds wherein the anthracene configured ring system is part of a ring system composed of four cycles.

- (1) Note. This subclass contains, for example:



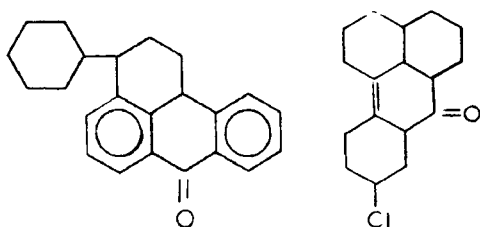
**287** This subclass is indented under subclass 286. Compounds wherein the tetracyclo ring system has sulfur, nitrogen, carbonyl or cyano bonded directly thereto.

(1) Note. This subclass contains, for example:



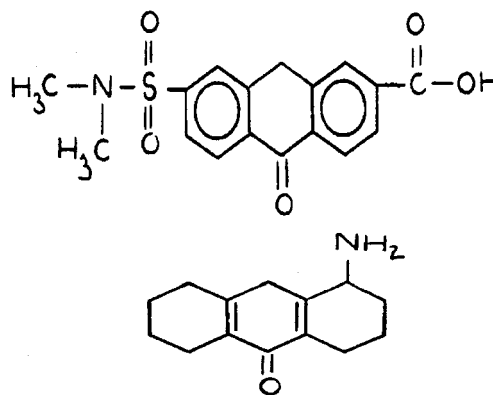
**288** This subclass is indented under subclass 286. Compounds wherein the tetracyclo ring system has carbon or halogen bonded directly thereto.

(1) Note. This subclass contains, for example:



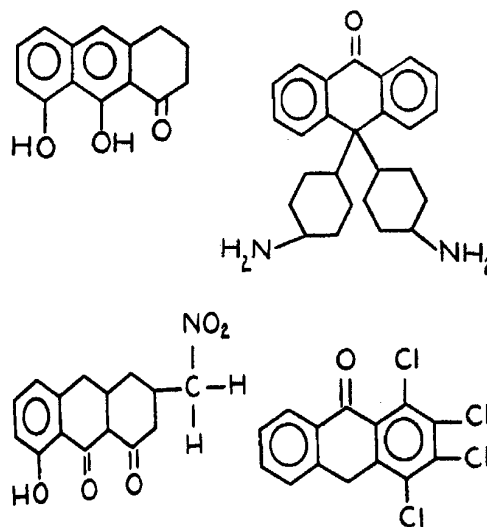
**289** This subclass is indented under subclass 271. Compounds wherein the anthracene configured ring system has sulfur or nitrogen bonded directly thereto.

(1) Note. This subclass contains, for example:



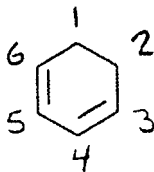
**290** This subclass is indented under subclass 271. Compounds wherein the anthracene configured ring system has halogen, carbon or plural oxygens bonded directly thereto.

(1) Note. This subclass contains, for example:

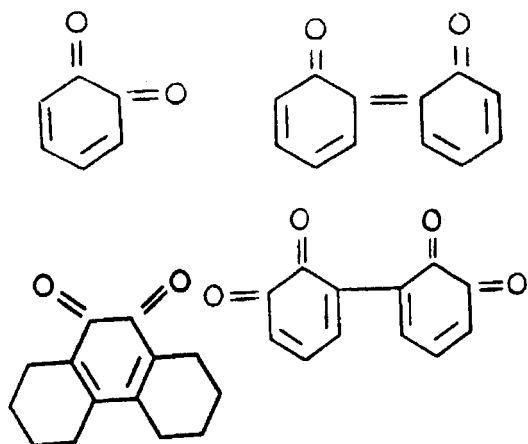


**291** This subclass is indented under subclass 1. Compounds under Class 532, ... , wherein atoms are double bonded directly to the 1- and 2- positions of a cyclohexadiene ring.

- (1) Note. For this and indented subclasses, the cyclohexadiene ring is numbered as follows:

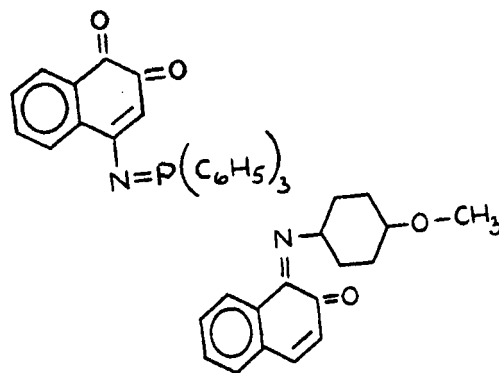


- (2) Note. This subclass contains, for example:



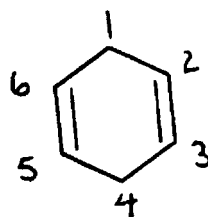
- 292** This subclass is indented under subclass 291. Compounds wherein the cyclohexadiene is one of the cyclos in a polycyclo ring system.

- (1) Note. This subclass contains, for example:



- 293** This subclass is indented under subclass 1. Compounds under Class 532, ... , wherein atoms are double bonded directly at the 1- and 4- positions of a cyclohexadiene ring.

- (1) Note. For this and indented subclasses, the cyclohexadiene ring is numbered as follows:

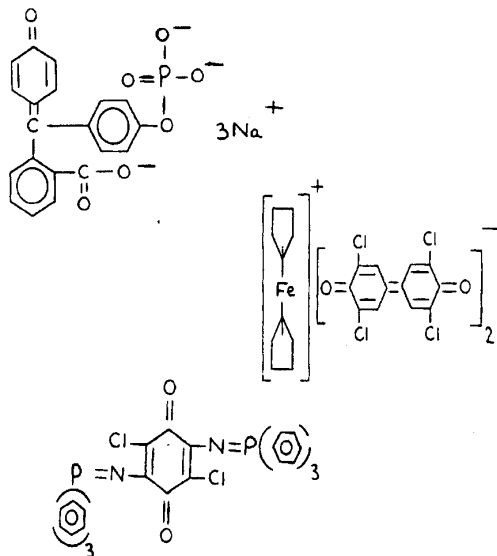


- (2) Note. This subclass contains, for example:



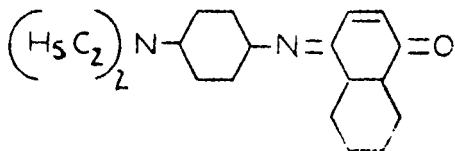
- 294** This subclass is indented under subclass 293. Compounds which contain aluminum, heavy metal or phosphorus.

- (1) Note. This subclass contains, for example:



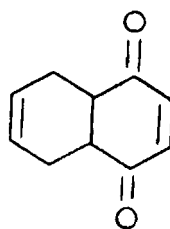
- 295** This subclass is indented under subclass 293. Compounds wherein the cyclohexadiene is part of a polycyclo ring system.

- (1) Note. This subclass contains, for example:



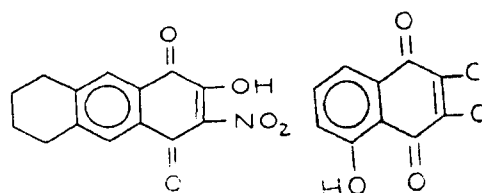
- 296** This subclass is indented under subclass 295. Compounds wherein oxygen is double bonded directly at the 1- and 4- positions.

- (1) Note. This subclass contains, for example:



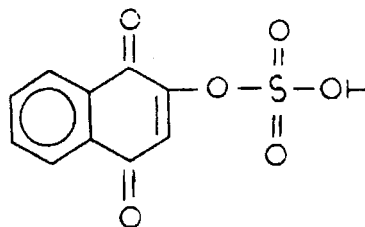
- 297** This subclass is indented under subclass 296. Compounds wherein the polycyclo ring system has halogen or nitrogen bonded directly thereto.

- (1) Note. This subclass contains, for example:



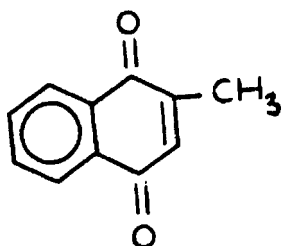
- 298** This subclass is indented under subclass 296. Compounds wherein the polycyclo ring system has chalcogen (i.e., oxygen, sulfur, selenium or tellurium) single bonded directly thereto.

- (1) Note. This subclass contains, for example:



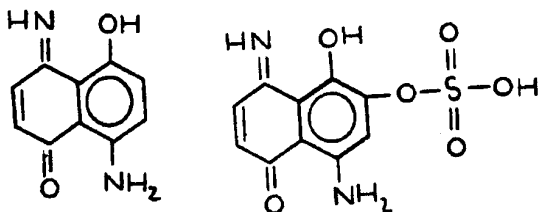
- 299** This subclass is indented under subclass 296. Compounds wherein the polycyclo ring system has carbon bonded directly thereto.

- (1) Note. This subclass contains, for example:



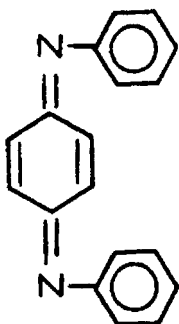
- 300** This subclass is indented under subclass 295. Compounds wherein the polycyclic ring system has at least two oxygens and at least two nitrogens bonded directly thereto.

(1) Note. This subclass contains, for example:



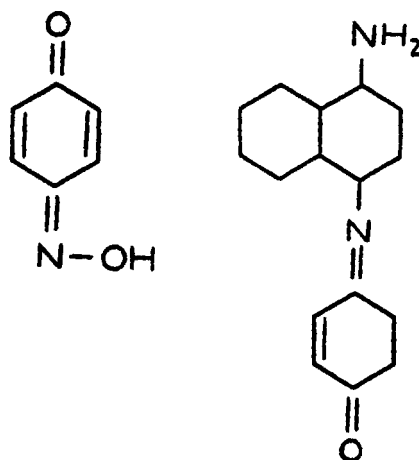
- 301** This subclass is indented under subclass 293. Compounds wherein the 1- and 4- positions of the cyclohexadiene have nitrogen double bonded directly thereto.

(1) Note. This subclass contains, for example:



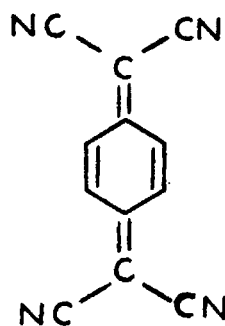
- 302** This subclass is indented under subclass 293. Compounds wherein the 1- or 4- position of the cyclohexadiene has nitrogen double bonded directly thereto.

(1) Note. This subclass contains, for example:



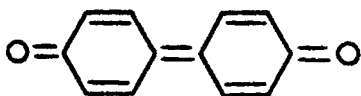
- 303** This subclass is indented under subclass 293. Compounds wherein the 1- and 4- positions of the cyclohexadiene have carbon double bonded directly thereto.

(1) Note. This subclass contains, for example:



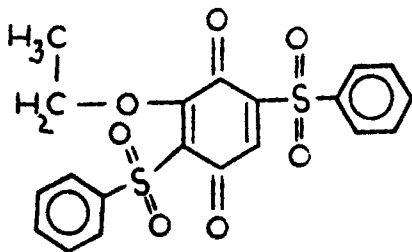
- 304** This subclass is indented under subclass 293. Compounds wherein the 1- or 4- position of the cyclohexadiene has carbon double bonded directly thereto.

- (1) Note. This subclass contains, for example:



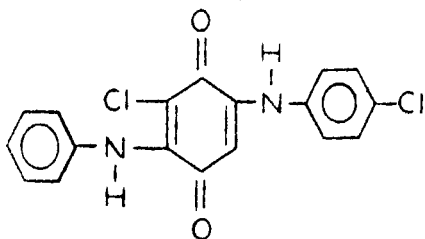
- 305** This subclass is indented under subclass 293. Compounds wherein sulfur is bonded directly to any of the remaining positions of the cyclohexadiene ring (i.e., 2-, 3-, 5-, or 6- position).

- (1) Note. This subclass contains, for example:



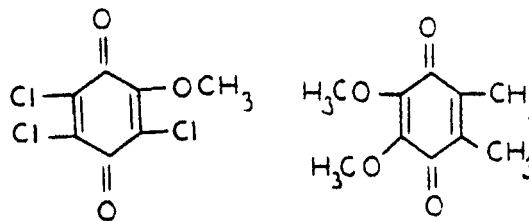
- 306** This subclass is indented under subclass 293. Compounds wherein nitrogen is bonded directly to any of the remaining positions of the cyclohexadiene ring (i.e., 2-, 3-, 5-, or 6- position).

- (1) Note. This subclass contains, for example:



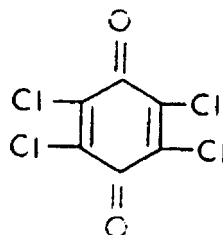
- 307** This subclass is indented under subclass 293. Compounds wherein oxygen is bonded directly to any of the remaining positions of the cyclohexadiene ring (i.e., 2-, 3-, 5-, or 6- position).

- (1) Note. This subclass contains, for example:



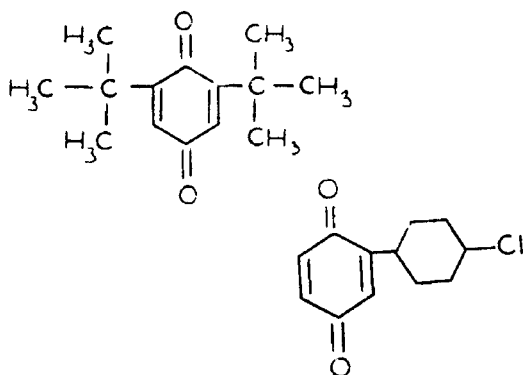
- 308** This subclass is indented under subclass 293. Compounds wherein halogen is bonded directly to any of the remaining positions of the cyclohexadiene ring (i.e., 2-, 3-, 5-, or 6- position).

- (1) Note. This subclass contains, for example:



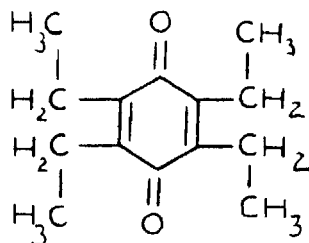
- 309** This subclass is indented under subclass 293. Compounds wherein carbon is bonded directly to any of the remaining positions of the cyclohexadiene ring (i.e., 2-, 3-, 5-, or 6- position).

- (1) Note. This subclass contains, for example:



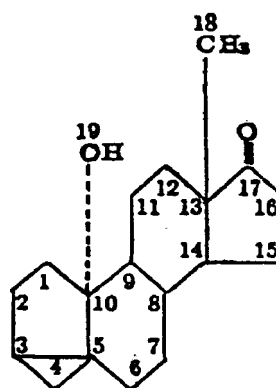
- 310** This subclass is indented under subclass 309. Compounds wherein at least three carbons are bonded directly to the cyclohexadiene ring.

(1) Note. This subclass contains, for example:



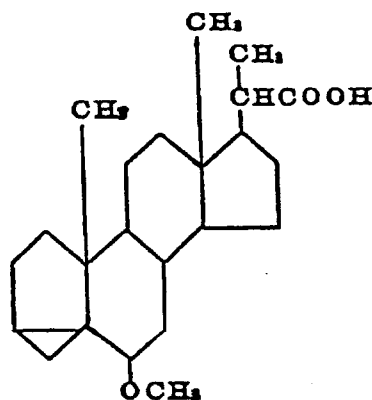
- 500** This subclass is indented under subclass 1. Compounds under Class 532, ... , containing a cyclopentano-hydrophenanthrene ring system configuration wherein two nonadjacent carbons of the ring system are bonded directly to each other and which may contain double bonds between ring members.

(1) Note. An example of a compound provided for herein is:

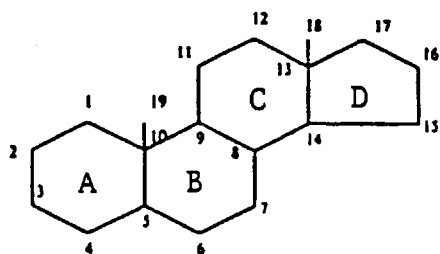


- 501** This subclass is indented under subclass 500. Compounds wherein oxygen is bonded directly at the 6-position of the cyclopentano-hydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:

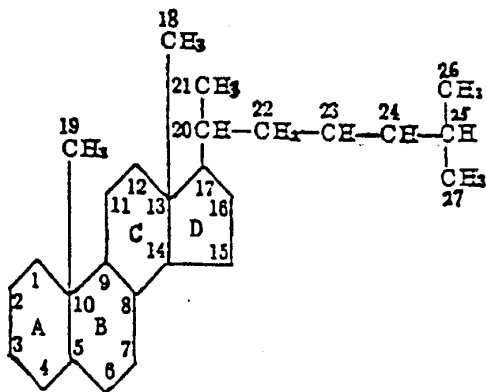


- 502** This subclass is indented under subclass 1. Compounds under Class 532, which have the basic structure in Fig. 1 below:



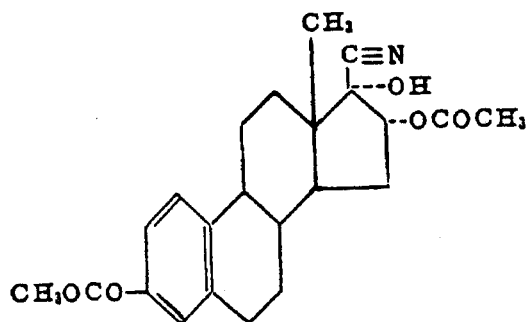
Which may contain double bonds between its ring members.

- (1) Note. The phenanthrene portion of this tetracyclic ring system cannot be completely aromatic; it must be hydrogenated to some degree.
- (2) Note. In the indents hereunder which refer to positions, the numbers shown in this definition are employed.
- (3) Note. Included herein are compounds which contain an additional ring fused to one or more of the rings of the cyclopentano-hydrophenanthrene ring system. See subclasses 510-514.
- (4) Note. The following structure shows the numbering system for substituents at the 17-position of the cyclopentano-hydrophenanthrene ring system:

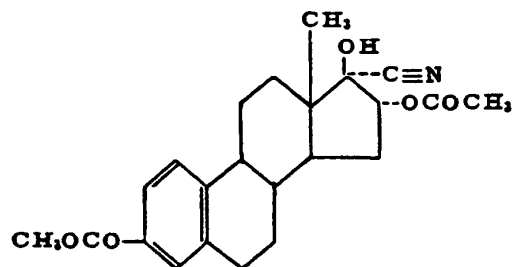


- (5) Note. A substituent at the 17-position of the cyclopentano-hydrophenanthrene ring system is designated as alpha or

beta depending upon the stereochemical configuration thereof. A 17 beta-substituent is normally written or drawn directly above the 17-carbon atom and attached thereto by a solid line; a 17-alpha substituent is normally written or drawn to the right of the 17-carbon atom and attached thereto by dotted lines. The drawings below illustrate a cyano substituent as both a 17-beta and 17-alpha substituent.



17B-cyano-3, 16a-diacetoxyestr-1,3,5(10)-trien-17a-ol



17a-cyano-3, 16a-diacetoxyestra-1,3,5(10)-trien-17B-ol

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 653, for Vitamin D compounds, calciferols, cholecalciferols, ergocalciferols, activated ergosterols, activated 7-dehydrocholesterols, irradiated ergosterol, irradiated 7-dehydrocholesterol, antirachitic vitamins, dihydrotachysterols, and 3,5-cyclovitamin D compounds.



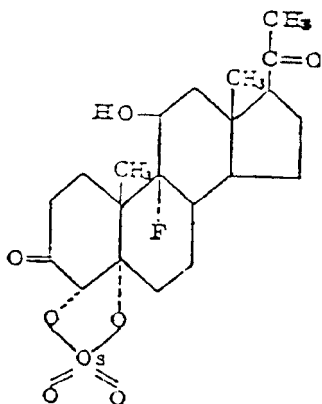
## SEE OR SEARCH CLASS:

- 514, Drug, Bio-Affecting and Body Treating Compositions, subclasses 169+ for a medicinal composition including a cyclopentanohydrophenanthrene compound.
- 536, Organic Compounds, subclasses 5+ for steroid glucosides, e.g., digitalis glucosides.
- 540, Organic Compounds, subclasses 2+ for cyclopentanohydrophenanthrene compounds containing a heterocyclic nucleus.

**503** This subclass is indented under subclass 502. Products which contain a compound having a cyclopentanohydrophenanthrene ring system in admixture with a preserving or stabilizing agent whose sole function is to prevent physical or chemical change.

**504** This subclass is indented under subclass 502. Compounds which include aluminum or a metal having a specific gravity greater than four.

- (1) Note. Arsenic is considered a heavy metal.

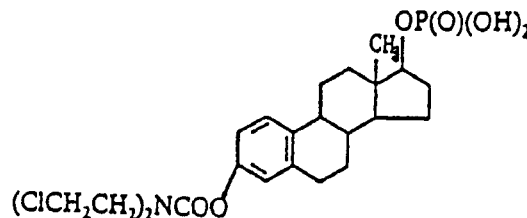


- (2) Note. An example of a compound provided for herein is:

**505** This subclass is indented under subclass 502. Compounds which contain boron, silicon, selenium or tellurium.

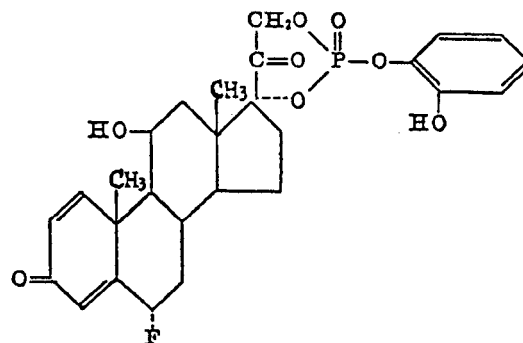
**506** This subclass is indented under subclass 502. Compounds wherein phosphorus is attached directly or indirectly to the cyclopentanohydrophenanthrene ring system by nonionic bonding.

- (1) Note. An example of a compound provided for herein is:



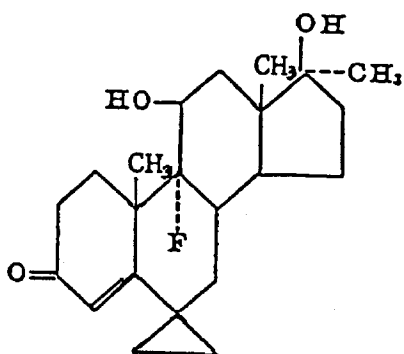
**507** This subclass is indented under subclass 506. Compounds wherein the phosphorus is bonded directly to the carbon at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system or is bonded directly to a chalcogen which is bonded directly at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



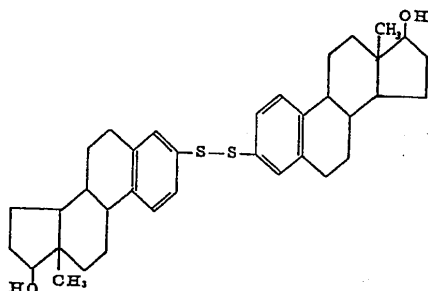
**508** This subclass is indented under subclass 502. Compounds which contain a spiro ring system.

- (1) Note. An example of a compound provided for herein is:



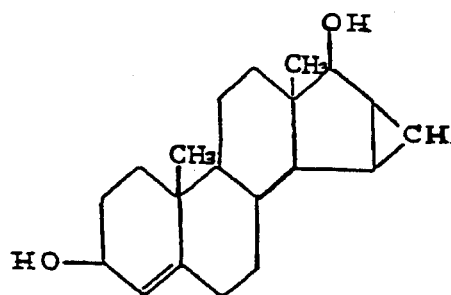
- 509** This subclass is indented under subclass 502. Compounds which contain at least two cyclopentanohydrophenanthrene ring systems.

(1) Note. An example of a compound provided for herein is:



- 510** This subclass is indented under subclass 502. Compounds in which the cyclopentanohydrophenanthrene ring system and at least one additional ring are parts of a polycyclic ring system having at least five cycles.

(1) Note. An example of a compound provided for herein is:

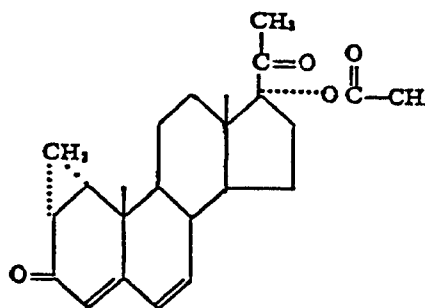


SEE OR SEARCH THIS CLASS, SUBCLASS:

500+, for cyclogonanes, e.g., 3,5-cyclocholesterols, 3,5-cycloandrostanes, 5,9-cyclopregnanes, etc.

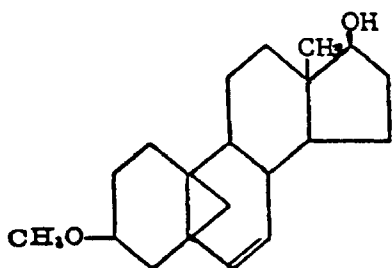
- 511** This subclass is indented under subclass 510. Compounds in which additional ring is ortho-fused to the A ring of the cyclopentanohydrophenanthrene ring system at the 1,2-positions.

(1) Note. An example of a compound provided for herein is:



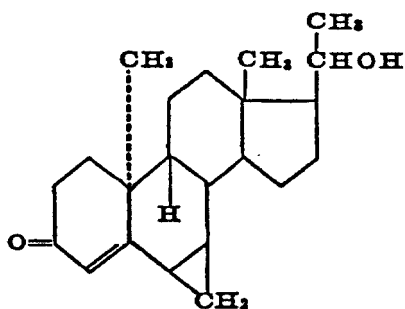
- 512** This subclass is indented under subclass 510. Compounds in which the additional ring shares the 5,10- or 5,19-positions of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



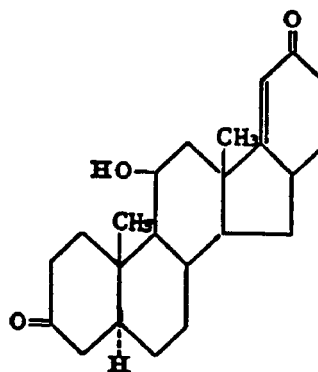
- 513** This subclass is indented under subclass 510. Compounds in which the additional ring is ortho-fused to the B ring of the cyclopentanohydrophenanthrene ring system at the 6,7-positions.

(1) Note. An example of a compound provided for herein is:



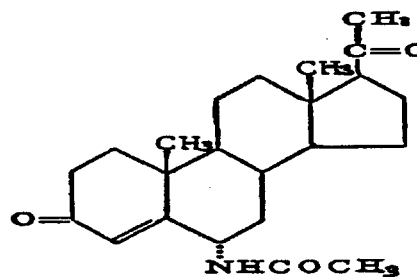
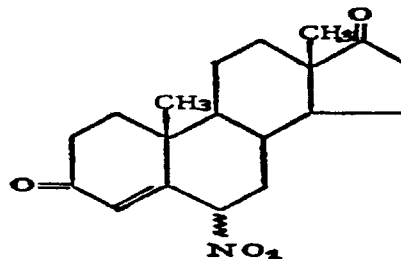
- 514** This subclass is indented under subclass 510. Compounds in which the additional ring is ortho-fused to the D ring of the cyclopentanohydrophenanthrene ring system at the 16,17-positions.

(1) Note. An example of a compound provided for herein is:



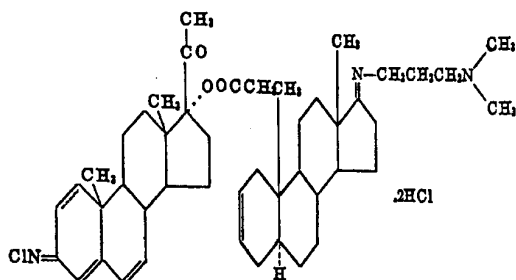
- 515** This subclass is indented under subclass 502. Compounds in which nitrogen is bonded directly to the cyclopentanohydrophenanthrene ring system.

(1) Note. Examples of compounds provided for herein are:



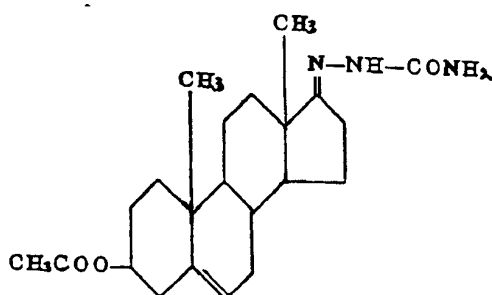
- 516** This subclass is indented under subclass 515. Compounds in which the nitrogen is double bonded to the cyclopentanohydrophenanthrene ring system.

(1) Note. Examples of compounds provided for herein are:



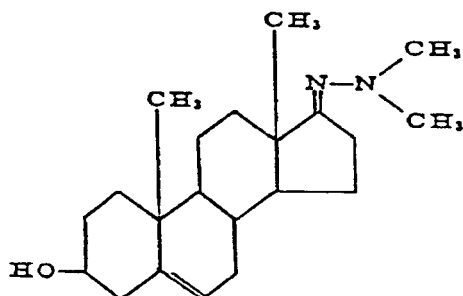
- 517** This subclass is indented under subclass 516. Compounds wherein the nitrogen is part of a semicarbazone or thiosemicarbazone group.

(1) Note. An example of a compound provided for herein is:



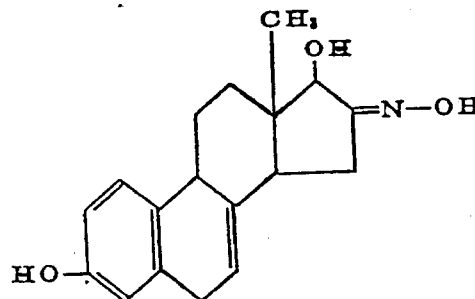
- 518** This subclass is indented under subclass 516. Compounds wherein an additional nitrogen is bonded directly to the nitrogen.

(1) Note. An example of a compound provided for herein is:



- 519** This subclass is indented under subclass 516. Compounds wherein oxygen is bonded directly to the nitrogen.

(1) Note. An example of a compound provided for herein is:



- 520** This subclass is indented under subclass 519. Compounds wherein the nitrogen is bonded directly at the 3-position of the cyclopentano-hydrophenanthrene ring system.

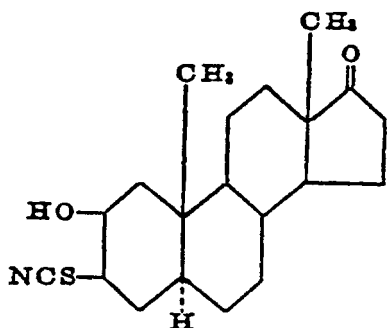
- 521** This subclass is indented under subclass 515. Compounds wherein the nitrogen is bonded directly at the 3-position of the cyclopentano-hydrophenanthrene ring system.

- 522** This subclass is indented under subclass 515. Compounds wherein the nitrogen is bonded directly at the 17-position of the cyclopentano-hydrophenanthrene ring system.

- 523** This subclass is indented under subclass 502. Compounds in which sulfur is bonded directly to the cyclopentano-hydrophenanthrene ring system.

- 524** This subclass is indented under subclass 523. Compounds wherein the sulfur is bonded directly at the 1- or 3-position of the cyclopentano-hydrophenanthrene ring system.

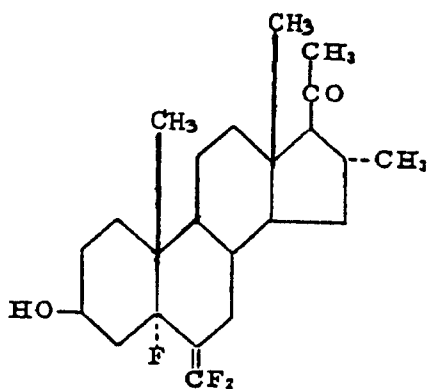
(1) Note. An example of a compound provided for herein is:



- 525** This subclass is indented under subclass 523. Compounds wherein the sulfur is bonded directly at the 16- or 17-position of the cyclopentanohydrophenanthrene ring system.

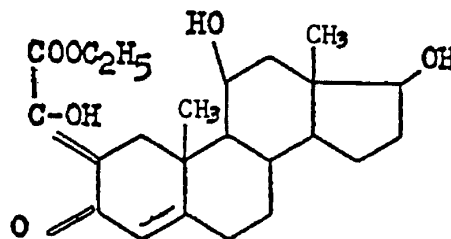
- 526** This subclass is indented under subclass 502. Compounds in which carbon is double bonded directly to the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



- 527** This subclass is indented under subclass 526. Compounds wherein the carbon is double bonded directly at the 2-position of the cyclopentanohydrophenanthrene ring system.

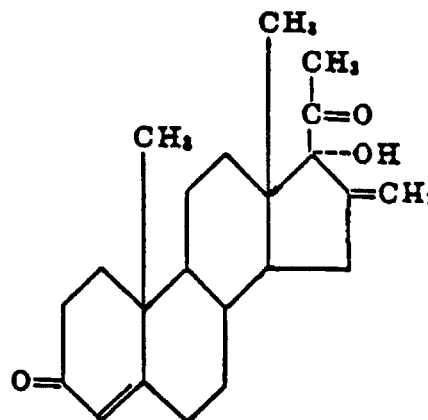
(1) Note. An example of a compound provided for herein is:



- 528** This subclass is indented under subclass 526. Compounds wherein the carbon is double bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

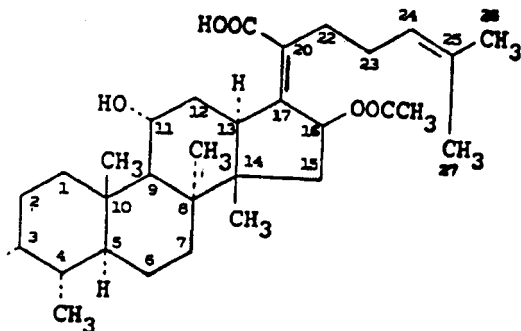
- 529** This subclass is indented under subclass 528. Compounds wherein carbon bonded directly at the 17 beta-position of the cyclopentanohydrophenanthrene ring system is a member of an acyclic chain of two or more uninterrupted carbons.

(1) Note. An example of a compound provided for herein is:



- 530** This subclass is indented under subclass 526. Compounds wherein the carbon is double bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

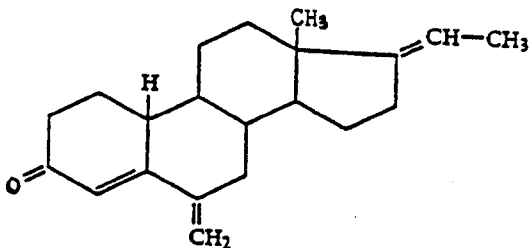
(1) Note. An example of a compound provided for herein is:



531 This subclass is indented under subclass 530. Compounds which contain nitrogen or sulfur.

532 This subclass is indented under subclass 530. Compounds wherein the carbon bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system is a member of an acyclic chain of exactly two carbons.

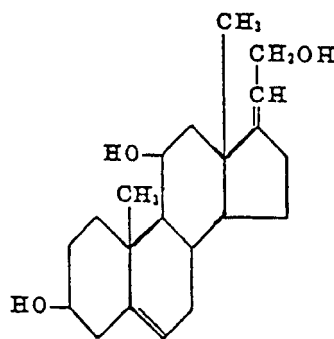
(1) Note. An example of a compound provided for herein is:



533 This subclass is indented under subclass 532. Compounds wherein plural oxygens are bonded directly to the cyclopentanohydrophenanthrene ring system.

534 This subclass is indented under subclass 533. Compounds wherein oxygen is bonded directly to the carbon at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein:



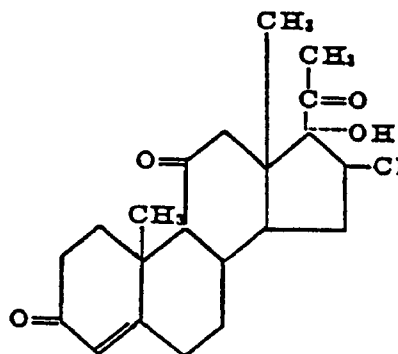
535 This subclass is indented under subclass 502. Compounds wherein halogen is bonded directly at the 12-position of the cyclopentanohydrophenanthrene ring system.

536 This subclass is indented under subclass 502. Compounds wherein halogen is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

537 This subclass is indented under subclass 536. Compounds wherein plural halogens are bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

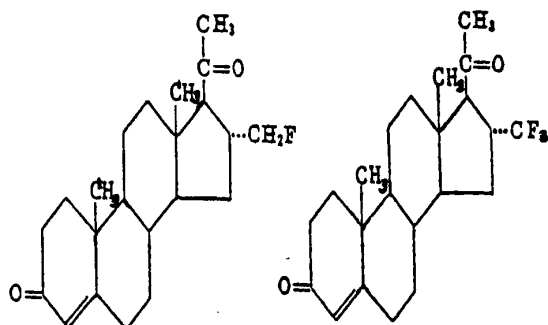
538 This subclass is indented under subclass 536. Compounds wherein carbon bonded directly at the 17 beta-position of the cyclopentanohydrophenanthrene ring system is a member of an acyclic chain of two or more uninterrupted carbons.

(1) Note. An example of a compound provided for here in is:



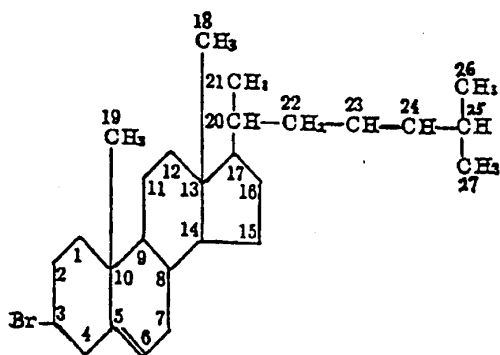
- 539** This subclass is indented under subclass 502. Compounds wherein halomethyl is bonded directly to the cyclopentanohydrophenanthrene ring system.

(1) Note. Examples of compounds provided for herein are:



- 540** This subclass is indented under subclass 502. Compounds wherein carbon bonded directly at the 17 beta-position of the cyclopentanohydrophenanthrene ring system is a member of an acyclic chain of six or more uninterrupted carbons.

(1) Note. An example of a compound provided for herein is:



SEE OR SEARCH THIS CLASS, SUBCLASS:

653, for Vitamin D compounds, calciferols, cholecalciferols, ergocalciferols, activated ergosterols, activated 7-dehydrocholesterols, irradiated ergosterol,

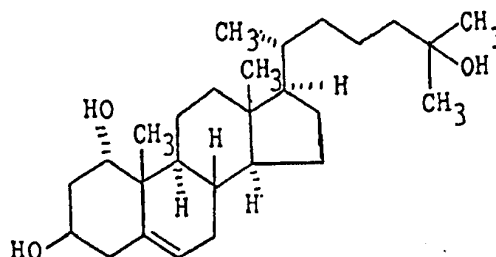
irradiated 7-dehydrocholesterol, anti-rachitic vitamins, dihydrotachysterols and 3,5-cyclovitamin D compounds.

SEE OR SEARCH CLASS:

514, Drug, Bio-Affecting and Body Treating Compositions, subclasses 169+ for a medicinal composition including a sterol compound.

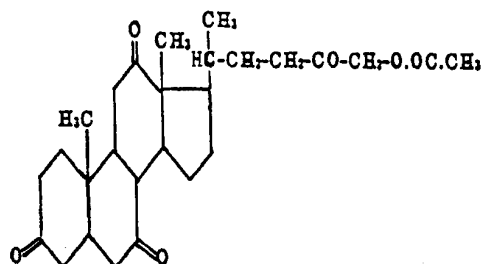
- 541** This subclass is indented under subclass 540. Compounds wherein oxygen is bonded directly at the 1-, 2-, or 4-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



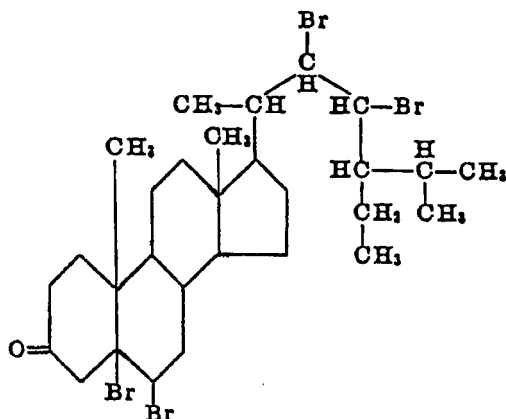
- 542** This subclass is indented under subclass 540. Compounds wherein oxygen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



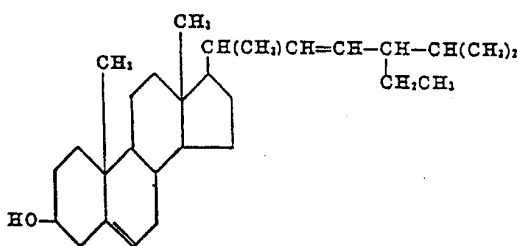
- 543** This subclass is indented under subclass 540. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



- 544** This subclass is indented under subclass 540. Compounds in which exactly one oxygen is bonded directly to the cyclopentanohydrophenanthrene ring system.

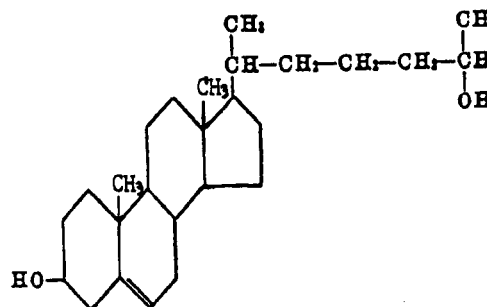
- (1) Note. Lanolin is provided for in this subclass.
- (2) Note. An example of a compound provided for herein is:



- 545** This subclass is indented under subclass 544. Processes which include isolating, purifying or recovering the cyclopentanohydrophenanthrene containing compound from animal, vegetable or fungal sources.

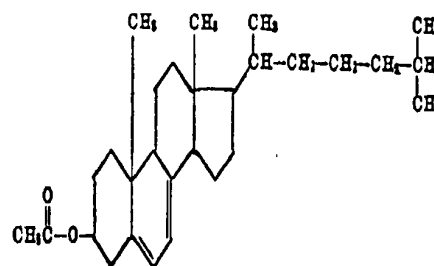
- 546** This subclass is indented under subclass 544. Compounds in which halogen or oxygen is bonded directly to the acyclic carbon chain at the 17 beta-position of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



- 547** This subclass is indented under subclass 544. Compounds which contain a double bond between the 7- and 8-positions of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



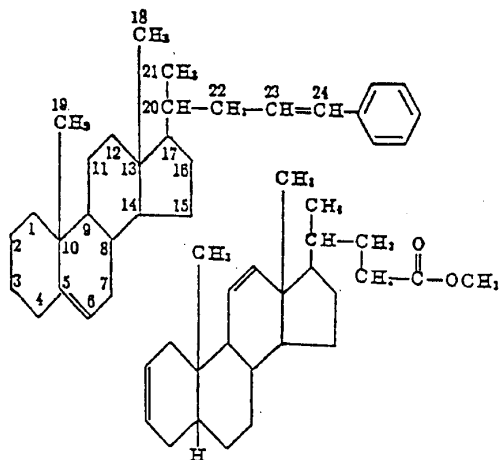
SEE OR SEARCH THIS CLASS, SUBCLASS:

- 653, for Vitamin D compounds, calciferols, cholecalciferols, ergocalciferols, activated ergosterols, activated 7-dehydrocholesterols, irradiated ergosterol, irradiated 7-dehydrocholesterol, antirachitic vitamins, dihydrotachysterols and 3,5-cyclovitamin D compounds.

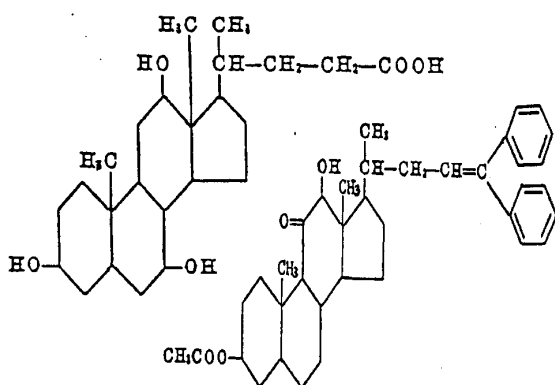
- 548** This subclass is indented under subclass 502. Compounds wherein carbon bonded directly at the 17 beta-position of the cyclopentanohydrophenanthrene ring system is a member of an acyclic chain of five uninterrupted carbons.



- (1) Note. Bile acids are provided for in this subclass and the subclasses indented hereunder, i.e., 549-552.
- (2) Note. Examples of compounds provided for herein are:



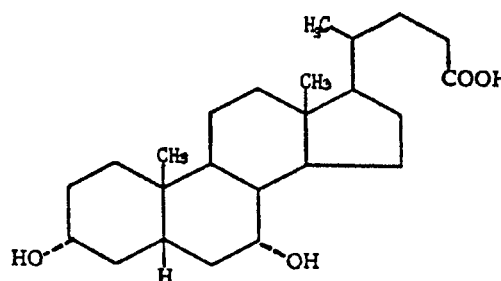
- 549** This subclass is indented under subclass 548. Compounds wherein oxygen is bonded directly at the 12-position of the cyclopentano-  
phenanthrene ring system.
- (1) Note. Examples of compounds provided for herein are:



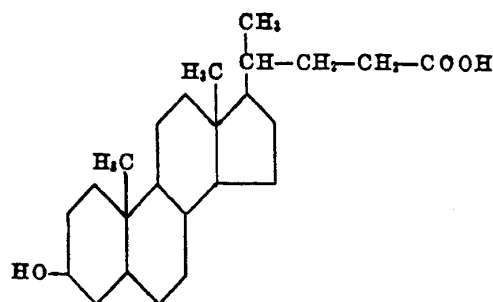
- 550** This subclass is indented under subclass 549.  
Compounds which contain halogen, nitrogen  
or sulfur.

- 551** This subclass is indented under subclass 548. Compounds wherein oxygen is bonded directly at the 6- or 7-position of the cyclopentano-  
hydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:

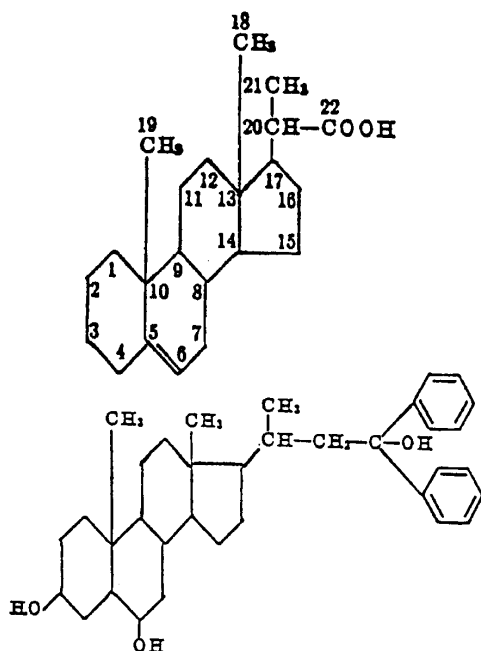


- 552** This subclass is indented under subclass 548. Compounds in which exactly one oxygen is bonded directly to the cyclopentanopentanolhydrophenanthrene ring system.
- (1) Note. An example of a compound provided for herein is:



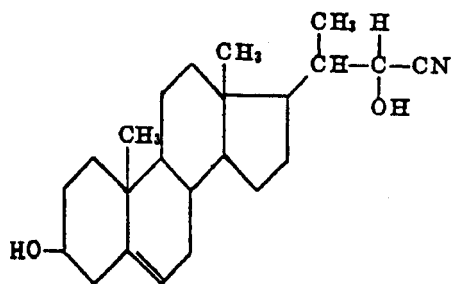
- 553** This subclass is indented under subclass 502. Compounds wherein carbon bonded directly at the 17 beta-position of the cyclopentano-*hydrophenanthrene* ring system is a member of an acyclic chain of three or four uninterrupted carbons.

- (1) Note. Examples of compounds provided for herein are:



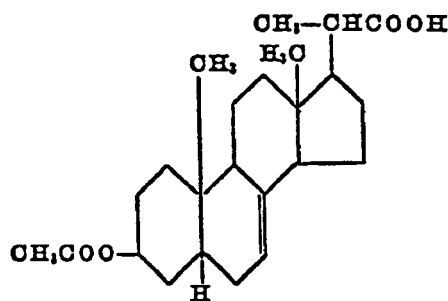
554 This subclass is indented under subclass 553. Compounds which contain halogen or nitrogen.

- (1) Note. An example of a compound provided for herein is:



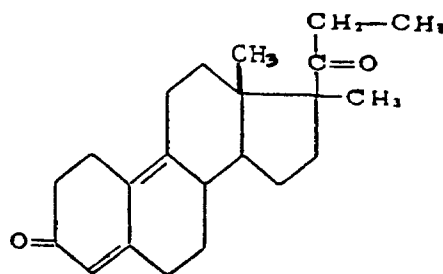
555 This subclass is indented under subclass 553. Compounds in which exactly one oxygen is bonded directly to the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



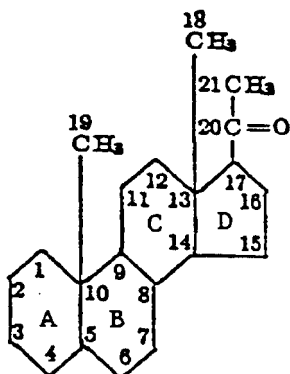
556 This subclass is indented under subclass 555. Compounds wherein oxygen is bonded directly to the carbon at the 20-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



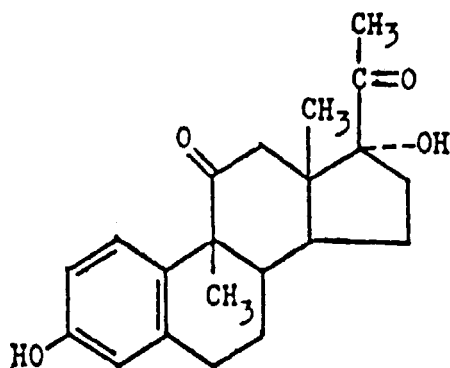
557 This subclass is indented under subclass 502. Compounds wherein carbon bonded directly at the 17 beta-position of the cyclopentanohydrophenanthrene ring system is a member of an acyclic chain of two uninterrupted carbons.

- (1) Note. An example of a compound provided for herein is:



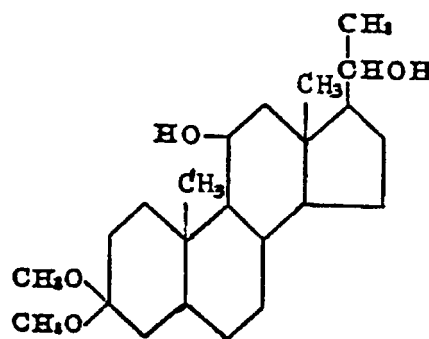
- 558 This subclass is indented under subclass 557. Compounds in which the A ring of the cyclopentanohydrophenanthrene ring system contains three alternating double bonds (i.e., is a benzene ring).

(1) Note. An example of a compound provided for herein is:



- 559 This subclass is indented under subclass 557. Compounds wherein three or more oxygens are bonded directly to the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



- 560 This subclass is indented under subclass 559. Compounds wherein oxygen is bonded directly at the 1-, 2-, or 4-position of the cyclopentanohydrophenanthrene ring system.

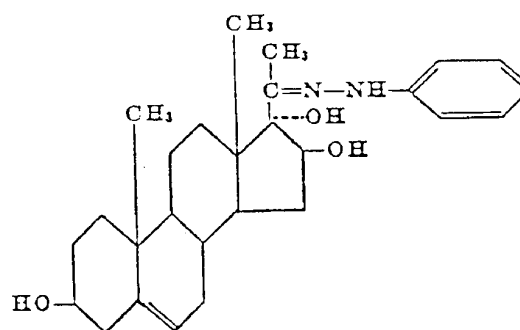
- 561 This subclass is indented under subclass 559. Compounds wherein oxygen is bonded directly at the 6-position of the cyclopentanohydrophenanthrene ring system.

- 562 This subclass is indented under subclass 559. Compounds wherein oxygen is bonded directly at the 7-, 8-, or 9-position of the cyclopentanohydrophenanthrene ring system.

- 563 This subclass is indented under subclass 559. Compounds wherein oxygen is bonded directly at the 14- or 15-position of the cyclopentanohydrophenanthrene ring system.

- 564 This subclass is indented under subclass 559. Compounds wherein oxygen is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

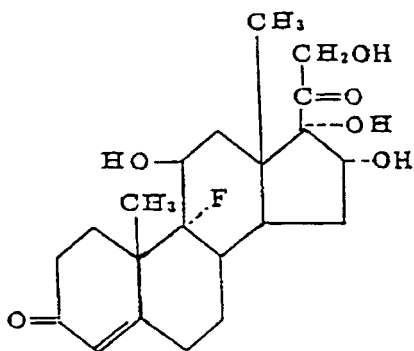
(1) Note. An example of a compound provided for herein is:



**565** This subclass is indented under subclass 564. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

**566** This subclass is indented under subclass 564. Compounds in which oxygen is bonded directly to the carbon at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

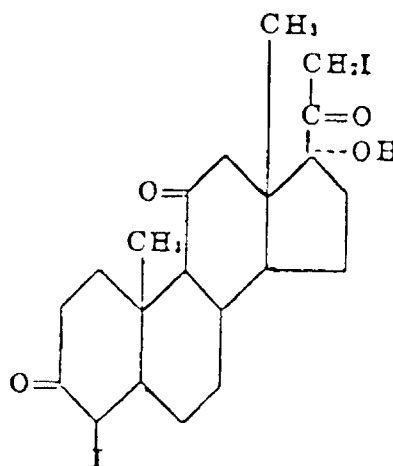
(1) Note. An example of a compound provided for herein is:



**567** This subclass is indented under subclass 559. Compounds wherein halogen is bonded directly at the 2- or 4- position of the cyclopentanohydrophenanthrene ring system.

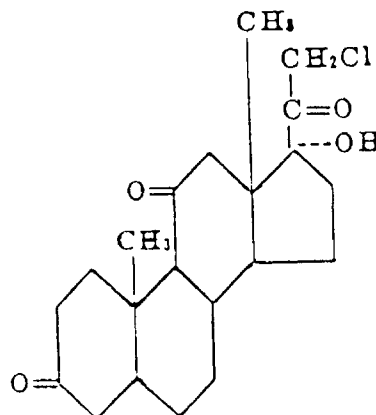
**568** This subclass is indented under subclass 567. Compounds wherein there are no double bonds between any ring members of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



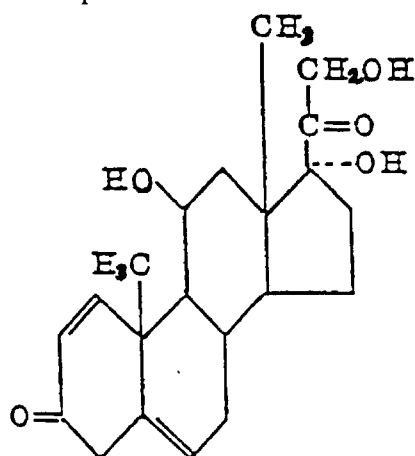
**569** This subclass is indented under subclass 559. Compounds wherein oxygen is bonded directly at the 3-, 11-, and 17-positions of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



**570** This subclass is indented under subclass 569. Compounds in which oxygen is bonded directly to the carbon at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

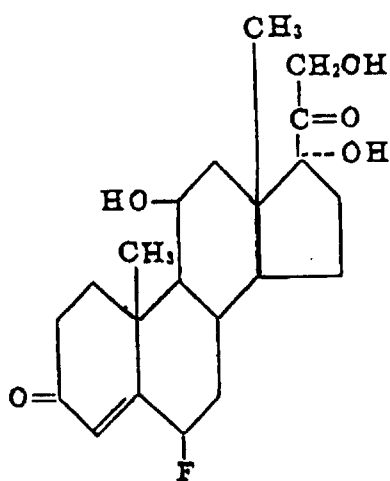
(1) Note. An example of a compound provided for herein is:



571 This subclass is indented under subclass 570. Compounds wherein carbon is bonded directly at the 1-, 2-, or 4-position of the cyclopentanohydrophenanthrene ring system.

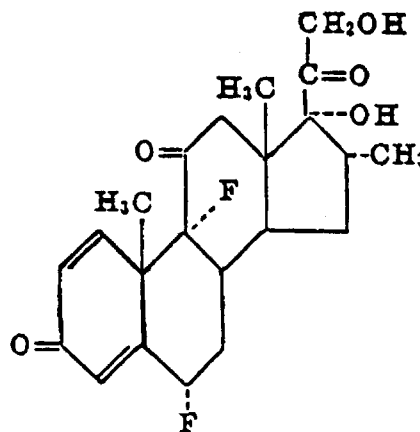
572 This subclass is indented under subclass 570. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



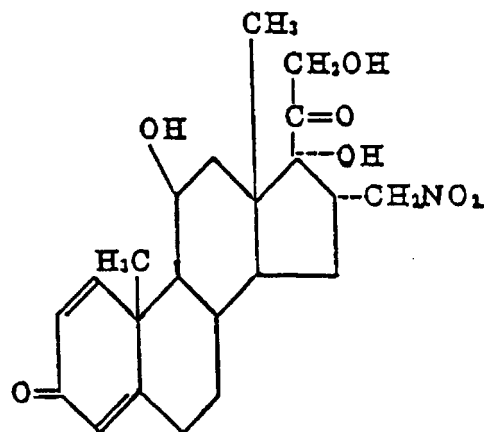
573 This subclass is indented under subclass 572. Compounds wherein carbon is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



574 This subclass is indented under subclass 570. Compounds wherein carbon is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:

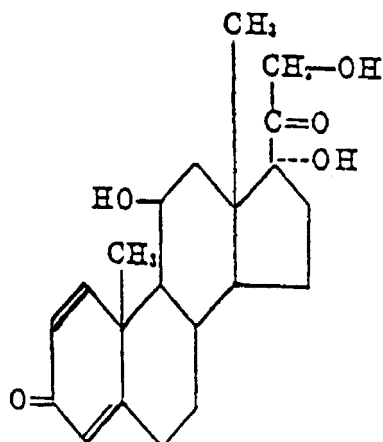


575 This subclass is indented under subclass 570. Compounds which contain nitrogen or sulfur.

576 This subclass is indented under subclass 570. Compounds which contain double bonds between the 1,2-positions and the 4,5-positions

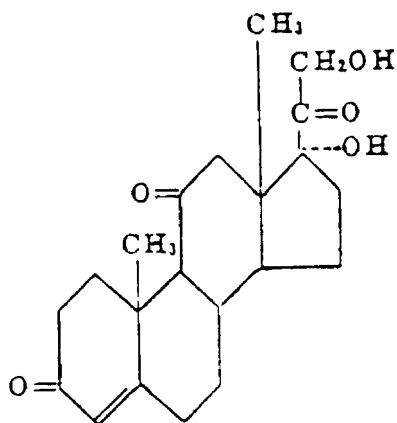
of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of compound provided for herein is:



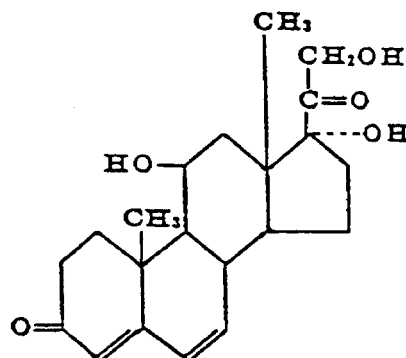
- 577** This subclass is indented under subclass 570. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



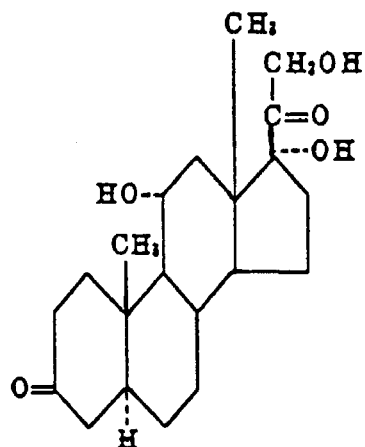
- 578** This subclass is indented under subclass 577. Compounds which contain an additional double bond between ring members of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



- 579** This subclass is indented under subclass 570. Compounds wherein there are no double bonds between any ring members of the cyclopentanohydrophenanthrene ring system.

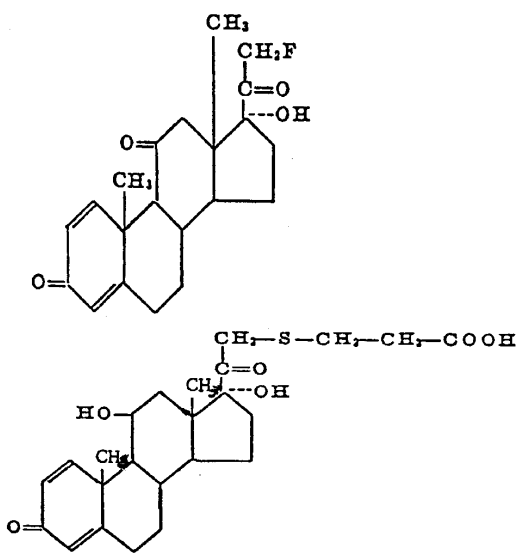
- (1) Note. An example of a compound provided for herein is:



- 580** This subclass is indented under subclass 569. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

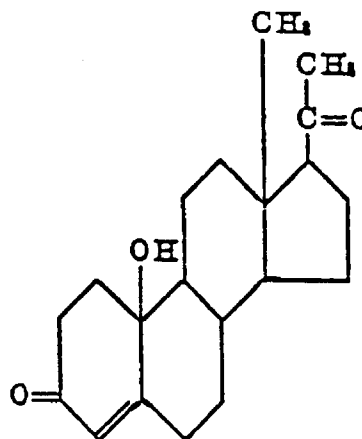
**581** This subclass is indented under subclass 569. Compounds which contain a double bond between the 4-and 5-positions of the cyclopentano-hydrophenanthrene ring system.

- (1) Note. Examples of compounds provided for herein are:



**582** This subclass is indented under subclass 557. Compounds wherein two oxygens are bonded directly to the cyclopentano-hydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



**583** This subclass is indented under subclass 582. Compounds wherein oxygen is bonded directly at the 5-, 6-, or 7-position of the cyclopentano-hydrophenanthrene ring system.

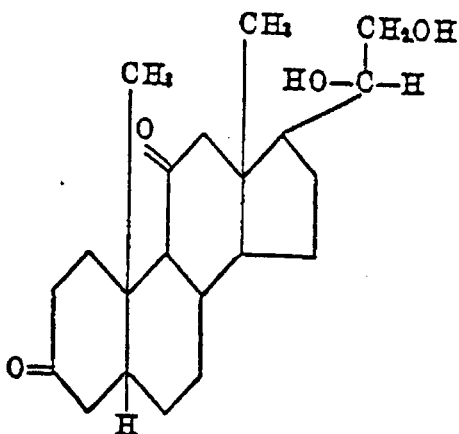
**584** This subclass is indented under subclass 582. Compounds wherein oxygen is bonded directly at the 12-position of the cyclopentano-hydrophenanthrene ring system.

**585** This subclass is indented under subclass 582. Compounds wherein oxygen is bonded directly at the 15- or 16-position of the cyclopentano-hydrophenanthrene ring system.

**586** This subclass is indented under subclass 582. Compounds wherein oxygen is bonded directly at the 3- and 11-positions of the cyclopentano-hydrophenanthrene ring system.

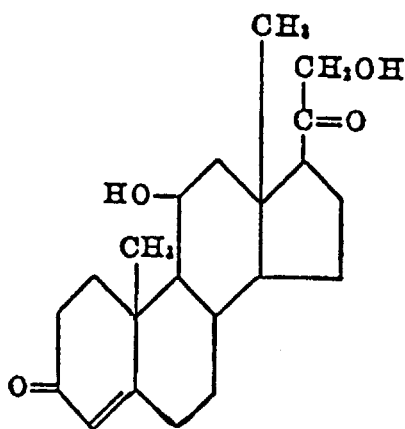
**587** This subclass is indented under subclass 586. Compounds wherein oxygen is bonded directly to the carbon at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentano-hydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



- 588** This subclass is indented under subclass 587. Compounds which contain a double between 4- and 5- positions of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



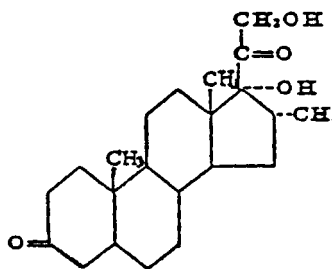
- 589** This subclass is indented under subclass 586. Compounds wherein carbon is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.
- 590** This subclass is indented under subclass 586. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanohydrophenanthrene ring system.

- 591** This subclass is indented under subclass 586. Compounds wherein there are no double bonds between any ring members of the cyclopentanohydrophenanthrene ring system.

- 592** This subclass is indented under subclass 582. Compounds wherein oxygen is bonded directly at the 3- and 17-positions of the cyclopentanohydrophenanthrene ring system.

- 593** This subclass is indented under subclass 592. Compounds wherein oxygen is bonded directly to the carbon at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:

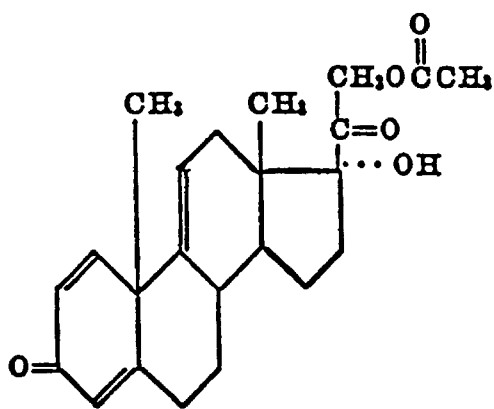


- 594** This subclass is indented under subclass 593. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

- 595** This subclass is indented under subclass 593. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:





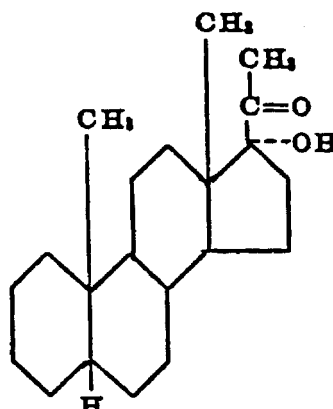
**596** This subclass is indented under subclass 592. Compounds wherein carbon is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

**597** This subclass is indented under subclass 592. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

**598** This subclass is indented under subclass 592. Compounds which contain a double bond between the 4- and 5- positions of the cyclopentanohydrophenanthrene ring system.

**599** This subclass is indented under subclass 557. Compounds wherein exactly one oxygen is bonded directly to the cyclopentanohydrophenanthrene ring system.

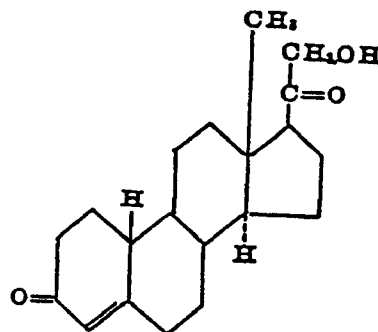
(1) Note. An example of a compound provided for herein is:



**600** This subclass is indented under subclass 599. Compounds wherein oxygen is bonded directly to the carbon at the 21-position of the acyclic carbon chain that is bonded directly at the 17-position of the cyclopentanohydrophenanthrene ring system.

**601** This subclass is indented under subclass 600. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



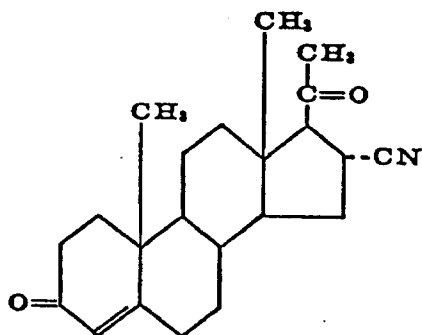
**602** This subclass is indented under subclass 601. Compounds which contain an additional double bond between ring members of the cyclopentanohydrophenanthrene ring system.

**603** This subclass is indented under subclass 599. Compounds wherein carbon or halogen is bonded directly at the 1-,2-,3-,4-, or 5-position

of the cyclopentanohydrophenanthrene ring system.

- 604** This subclass is indented under subclass 599. Compounds wherein carbon is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

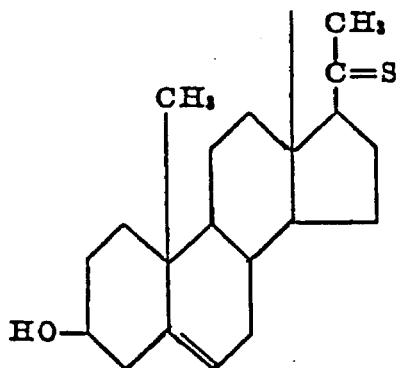
(1) Note. An example of a compound provided for herein is:



- 605** This subclass is indented under subclass 599. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

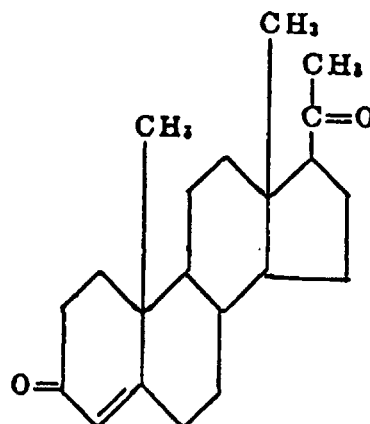
- 606** This subclass is indented under subclass 599. Compounds which contain a double bond between the 5- and 6-positions of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



- 607** This subclass is indented under subclass 599. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanohydrophenanthrene ring system.

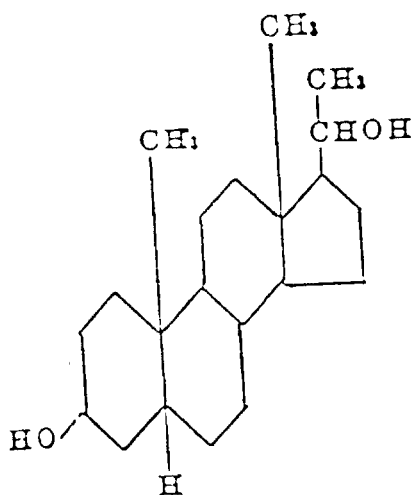
(1) Note. An example of a compound provided for herein is:



- 608** This subclass is indented under subclass 607. Compounds which contain an additional double bond between ring members of the cyclopentanohydrophenanthrene ring system.

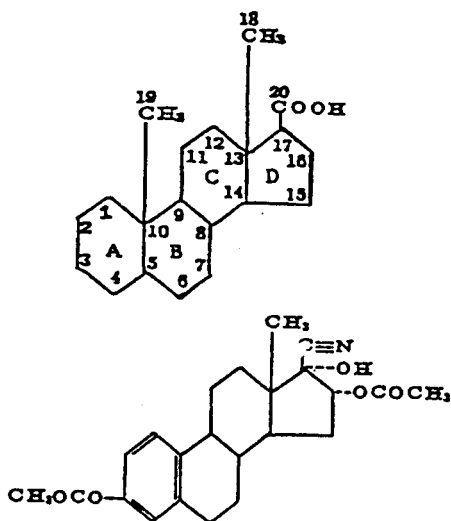
- 609** This subclass is indented under subclass 599. Compounds wherein there are no double bonds between any ring members of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



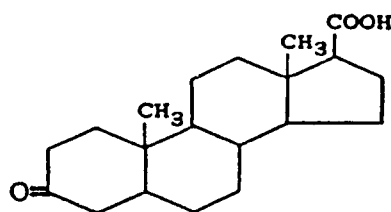
- 610** This subclass is indented under subclass 502. Compounds wherein an acyclic carbon is bonded directly at the 17 beta-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. Examples of compounds provided for herein are:



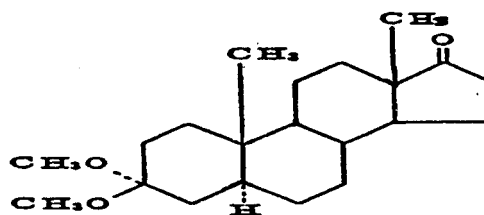
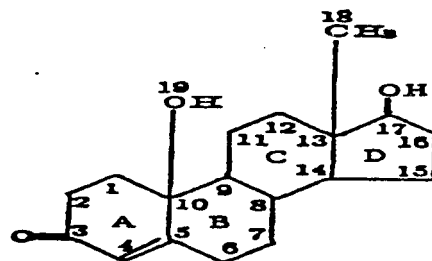
- 611** This subclass is indented under subclass 610. Compounds wherein exactly one oxygen is bonded directly to the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



- 612** This subclass is indented under subclass 502. Compounds wherein three or more oxygens are bonded directly to the cyclopentanohydrophenanthrene ring system.

(1) Note. Examples of compounds provided for herein are:



- 613** This subclass is indented under subclass 612. Compounds wherein oxygen is bonded directly at the 1-position of the cyclopentanohydrophenanthrene ring system.

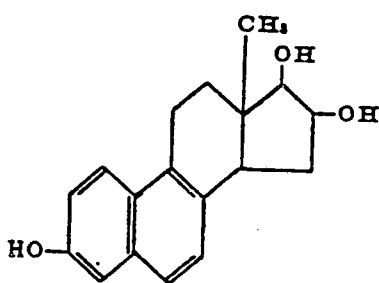
- 614** This subclass is indented under subclass 612. Compounds wherein oxygen is bonded directly at the 2- or 4-position of the cyclopentanohydrophenanthrene ring system.

- 615** This subclass is indented under subclass 612. Compounds wherein oxygen is bonded directly at the 5-, 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

**616** This subclass is indented under subclass 612. Compounds wherein oxygen is bonded directly at the 16-position of the cyclopentanoanthrene ring system.

**617** This subclass is indented under subclass 616. Compounds in which the A ring of the cyclopentanoanthrene ring system contains three alternating double bonds (i.e., is a benzene ring).

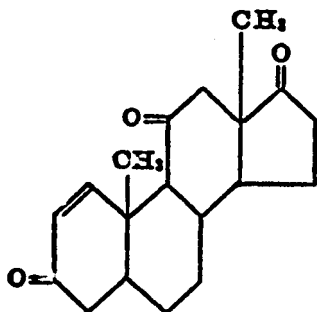
- (1) Note. An example of a compound provided for herein is:



**618** This subclass is indented under subclass 612. Compounds in which the A ring of the cyclopentanoanthrene ring system contains three alternating double bonds (i.e., is a benzene ring).

**619** This subclass is indented under subclass 612. Compounds wherein oxygen is bonded directly at the 3-, 11- and 17-positions of the cyclopentanoanthrene ring system.

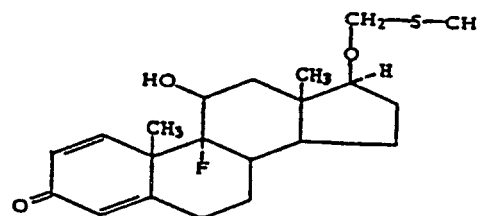
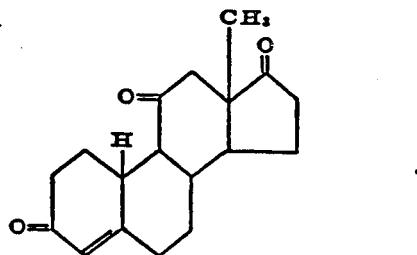
- (1) Note. An example of a compound provided for herein is:



**620** This subclass is indented under subclass 619. Compounds wherein carbon or halogen is bonded directly at the 1-, 2-, or 4-position of the cyclopentanoanthrene ring system.

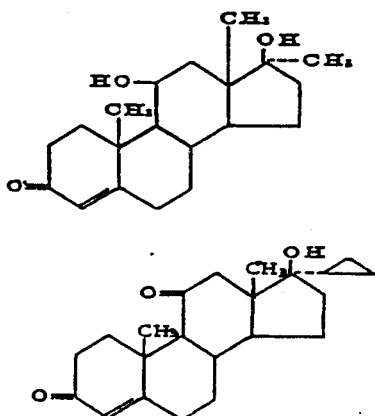
**621** This subclass is indented under subclass 619. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanoanthrene ring system.

- (1) Note. Examples of compounds provided for herein are:



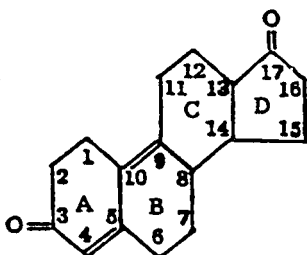
**622** This subclass is indented under subclass 621. Compounds in which a substituent is bonded directly at the 17 alpha-position of the cyclopentanoanthrene ring system.

- (1) Note. Examples of compounds provided for herein are:



- 623** This subclass is indented under subclass 502. Compounds wherein two oxygens are bonded directly to the cyclopentanohydrophenanthrene ring system.

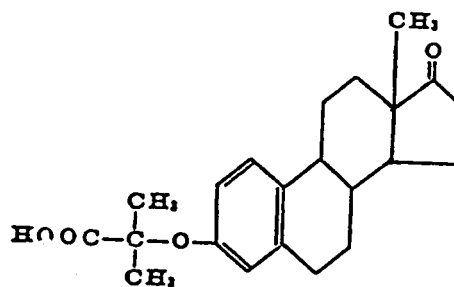
(1) Note. An example of a compound provided for herein is:



- 624** This subclass is indented under subclass 623. Compounds wherein oxygen is bonded directly at the 16-position of the cyclopentanohydrophenanthrene ring system.

- 625** This subclass is indented under subclass 623. Compounds in which the A ring of the cyclopentanohydrophenanthrene ring system contains three alternating double bonds (i.e., is a benzene ring).

(1) Note. An example of a compound provided for herein is:



- 626** This subclass is indented under subclass 625. Compounds which contain nitrogen or sulfur.

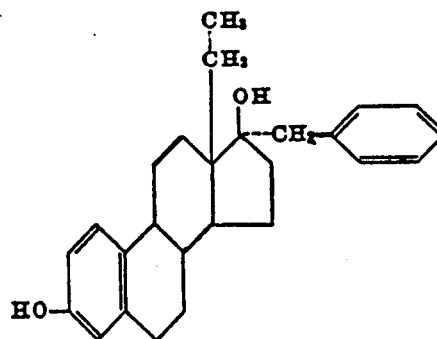
- 627** This subclass is indented under subclass 625. Compounds wherein carbon or halogen is bonded directly at the 1-, 2-, or 4-position of the cyclopentanohydrophenanthrene ring system.

- 628** This subclass is indented under subclass 625. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

- 629** This subclass is indented under subclass 625. Compounds wherein carbon is bonded directly at the 11-, 15-, or 16-position of the cyclopentanohydrophenanthrene ring system.

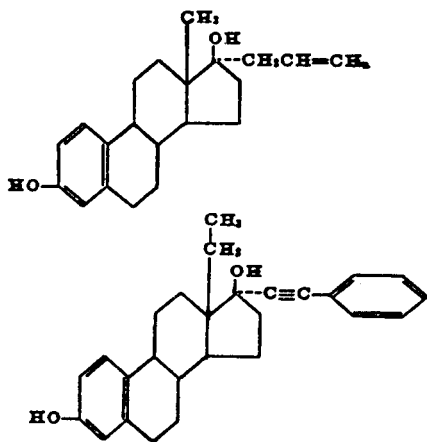
- 630** This subclass is indented under subclass 625. Compounds in which a substituent is bonded directly at the 17 alpha-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



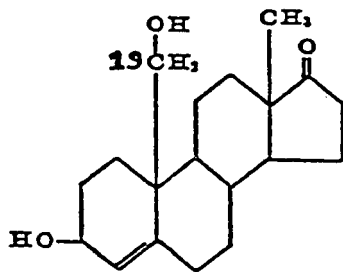
**631** This subclass is indented under subclass 630. Compounds in which the substituent bonded directly at the 17 alpha-position contains acyclic carbon-to-carbon unsaturation.

- (1) Note. Examples of compounds provided for herein are:



**632** This subclass is indented under subclass 623. Compounds in which a substituent is bonded directly at the 19-position of the cyclopentano-hydrophenanthrene ring system.

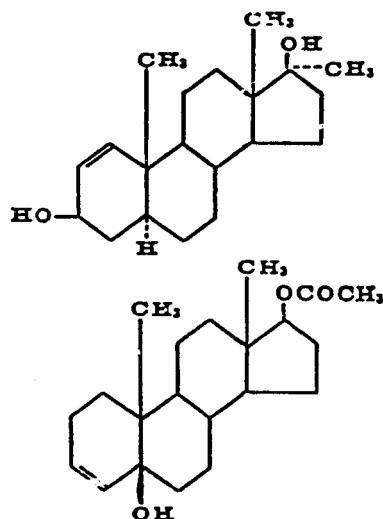
- (1) Note. An example of a compound provided for herein is:



- (2) Note. The 19-position is present in the cyclopentano-hydrophenanthrene ring system when a carbon is bonded directly at the 10-position of the cyclopentano-hydrophenanthrene ring system, said carbon being designated the 19-position.

**633** This subclass is indented under subclass 623. Compounds wherein carbon is bonded directly at the 10- and 13-positions of the cyclopentano-hydrophenanthrene ring system.

- (1) Note. Examples of compounds provided for herein are:

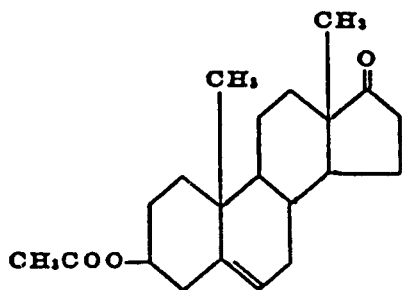


**634** This subclass is indented under subclass 633. Compounds wherein carbon or halogen is bonded directly at the 1- or 3-position of the cyclopentano-hydrophenanthrene ring system.

**635** This subclass is indented under subclass 633. Compounds wherein carbon or halogen is bonded directly at the 2- or 4-position of the cyclopentano-hydrophenanthrene ring system.

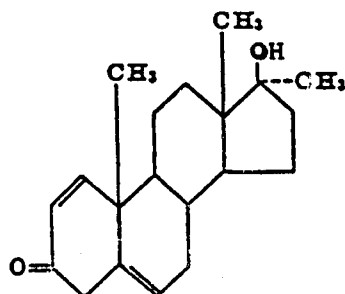
**636** This subclass is indented under subclass 633. Compounds which contain a double bond between the 5- and 6-positions of the cyclopentano-hydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



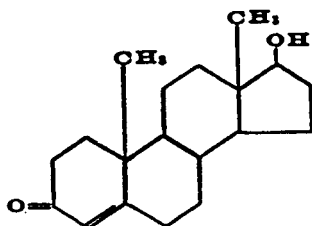
- 637 This subclass is indented under subclass 636. Compounds in which a substituent is bonded directly at the 17 alpha-position of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



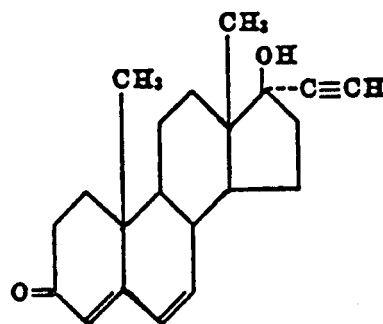
- 638 This subclass is indented under subclass 633. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



- 639 This subclass is indented under subclass 638. Compounds in which a substituent is bonded directly at the 17 alpha-position of the cyclopentanohydrophenanthrene ring system.

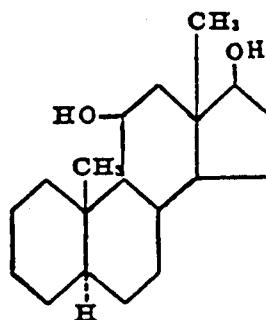
(1) Note. An example of a compound provided for herein is:



- 640 This subclass is indented under subclass 638. Compounds which contain an additional double bond between ring members of the cyclopentanohydrophenanthrene ring system.

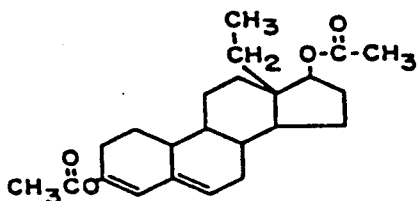
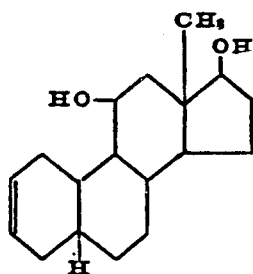
- 641 This subclass is indented under subclass 633. Compounds wherein there are no double bonds between any ring members of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



- 642 This subclass is indented under subclass 623. Compounds wherein carbon is bonded directly at the 13-position of the cyclopentanohydrophenanthrene ring system.

- (1) Note. Examples of compounds provided for herein are:

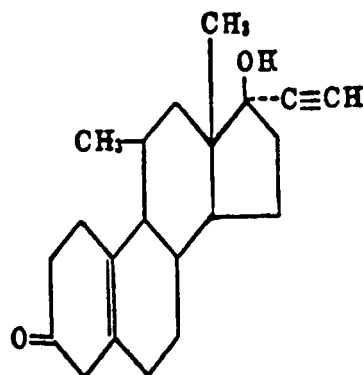


**643** This subclass is indented under subclass 642. Compounds wherein carbon or halogen is bonded directly at the 1-, 2-, 4-, or 5-position of the cyclopentanohydrophenanthrene ring system.

**644** This subclass is indented under subclass 642. Compounds which contain a double bond between the 5- and 10-positions of the cyclopentanohydrophenanthrene ring system.

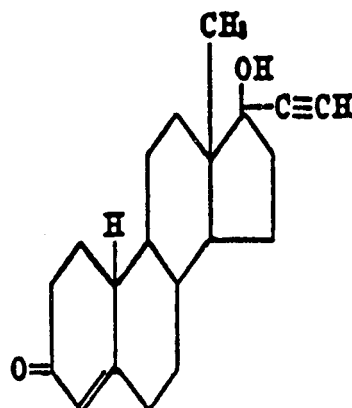
**645** This subclass is indented under subclass 644. Compounds in which a substituent is bonded directly at the 17 alpha-position of the cyclopentanohydrophenanthrene ring system.

- (1) Note. An example of a compound provided for herein is:



**646** This subclass is indented under subclass 642. Compounds which contain a double bond between the 4- and 5-positions of the cyclopentanohydrophenanthrene ring system.

- (1) Note. Examples of compounds provided for herein are:

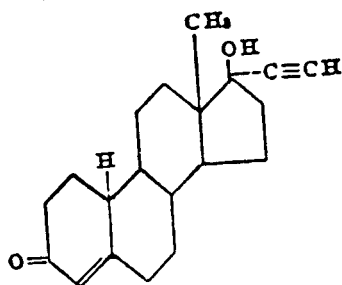


**647** This subclass is indented under subclass 646. Compounds wherein carbon or halogen is bonded directly at the 6- or 7-position of the cyclopentanohydrophenanthrene ring system.

**648** This subclass is indented under subclass 646. Compounds in which a substituent is bonded directly at the 17 alpha-position of the cyclopentanohydrophenanthrene ring system.

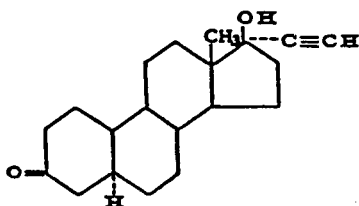
- (1) Note. An example of a compound provided for herein is:





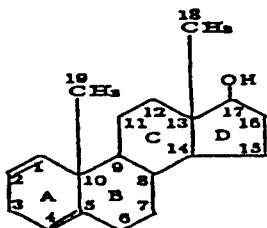
- 649 This subclass is indented under subclass 642. Compounds wherein there are no double bonds between any ring members of the cyclopentanohydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:



- 650 This subclass is indented under subclass 502. Compounds wherein oxygen is bonded directly at the 16- or 17-position of the cyclopentano-hydrophenanthrene ring system.

(1) Note. An example of a compound provided for herein is:

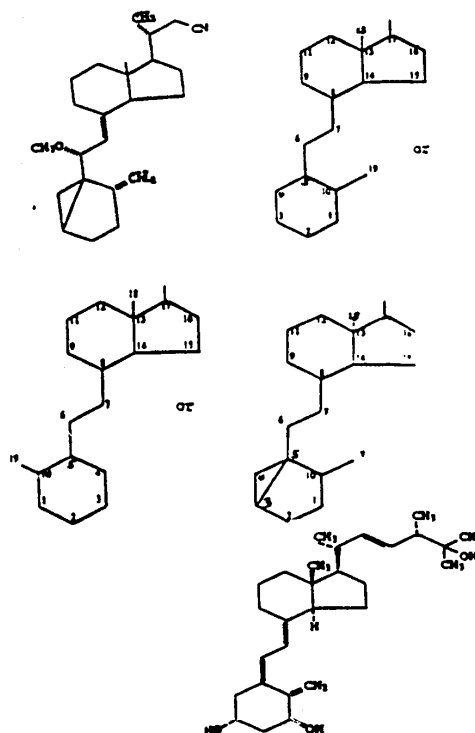


- 651 This subclass is indented under subclass 650. Compounds wherein carbon or halogen is bonded directly at the 1- or 3-position of the cyclopentanohydrophenanthrene ring system.

- 652 This subclass is indented under subclass 650. Compounds wherein carbon or halogen is bonded directly at the 2-, 4-, or 5-position of the cyclopentanohydrophenanthrene ring system.

- 653 This subclass is indented under subclass 350. Compounds under Class 260, ... , which have the following basic structures:

(1) Note. Examples of compounds provided for herein are:



END